

# AMERICAN RAILROAD JOURNAL.

STEAM NAVIGATION, COMMERCE, MINING, MANUFACTURES.

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very feeling of distrust which we have referred to in the commencement of this article. What railroads have achieved, was foreseen only by the most ardent minded and sagacious among us. The most sanguine imagination could not have anticipated all that they accomplished. On the part of such persons often, "the wish was father of the thought." They more conservative and cautious, and these always represent the monied classes,—dealt out the means for their construction with a sparing hand, requiring in all cases a sufficient stock basis as the security for their loans. The result was, that these projects which had an amount of local strength which promised entire safety to the money sought to be borrowed, could obtain it. The weaker ones were compelled to bide their time, and were postponed till they acquired additional strength, or till an increased confidence in these enterprises, rendered capitalists less choice as to the character of their investments.

To speak more directly, the following has been considered the safe rule for making investments. If those engaged in the construction of a railroad could furnish *one-half* of the means required, the sum was regarded as a sufficient guarantee for the safety of a loan to an equal amount; as evidence that the road was needed by a community that furnish so large an am't and that having so much at stake, those having it in charge, would take good care that it was well managed. When such an exhibit could *not* be made, the presumption was that the road was not called for by any existing business; that the project was premature, and would consequently prove unprofitable.

The rule we have laid down, not only serves as a test, by which to determine the soundness of a security offering, but imposes a proper and wholesome restraint upon the wholesale and indiscriminate construction of roads. It has been owing to the observance of this rule, that our great success, and the healthy and prosperous condition of our roads, is mainly owing. It becomes the more important and obligatory, in proportion to the increased strength of public confidence in the profitableness of our railways. Our danger is really commencing. Because all that we have built *pay*, there is great danger that we may work ourselves into the infatuation, that all we *may* undertake

The railroad is the agent or instrument of commerce. The condition of success should always exist before attempting to realize it. Railroads can only be built and operated at vast cost, and if we anticipate the wants of a community in the construction, or build them where they are not needed, the most disastrous results cannot fail to follow. Let us preserve what is achieved, and not soil our present success nor mar our projects in construction by overdoing a business which has been legitimately pursued, but which one serious mistake might overwhelm with disaster. Let us cherish and mature what we have, rather than undertake problematical schemes, which may endanger present success, and our prospects for the future.

## Assessment of Property in Baltimore City.

The Assessors for Baltimore city having completed their labors, and the Appeal Tax Court having finally decided all cases of appeal, the following is the complete assessment, as returned to the Comptroller of the Treasury:

The aggregate value of the different descriptions of property assessed are as follows:—Value real estate \$66,271,259; bank and other stocks \$11,213,761; private securities \$5,157,653; public securities \$4,852,321; stock in trade \$9,521,108; household furniture \$3,877,047; live stock and carriages \$437,316; watches \$100,870; slaves \$326,815; other property \$3,543,788. Grand total—\$104,801,438.

The aggregate of assessable property, according to the assessment of 1846, was \$86,103,673. The increase shown by the assessment just completed, is therefore \$18,697,765.

## Liability of Railroad Companies in carrying Live Stock.

At Rutland, Vt., in the case of William Kimball vs. the Rutland railroad company, for loss and injury of cattle on the way to Cambridge Market, before the Common Pleas Court, the Judge held that the defendants were not liable as common carriers for the transportation of live stock; that the plaintiff had himself disclosed the existence of a special contract under which the defendants must be liable, if at all, and that the plaintiff was not entitled to recover under his declaration. Judgment was given for the defendants.

## American Railroad Journal.

Saturday, May 14, 1853.

### How Stand our Railroad Affairs?

For years past, more or less apprehension has been felt in reference to the numerous lines of railroad that have been in progress, lest their demands should exceed the ability of the country to supply the means for their construction, or that projects should be taken up, which, after absorbing a large amount of capital, should prove unproductive, invoking a loss not only in the particular case, but throwing discredit upon the whole interest, and ending it was feared, in a financial crisis.

The result has proved the groundlessness of all these fears. From 5,000 miles of road on the first day of January, 1849, we have proceeded in their construction without the slightest check, till we have some 14,000 miles in actual operation, and nearly an equal extent in progress. In the mean time we have experienced no financial crisis. Money has on the whole, been constantly growing more and more abundant; the roads as they were completed at once engaged in a lucrative traffic. Confidence in their safety as investments of capital, has been steadily gaining ground. All these causes combined have rendered the construction of railroads an easy matter, and the building of 100 miles at the present time, is in fact regarded as a less formidable task, than one-tenth of the same extent five years ago.

Our great success has been in fact owing to the *will pay*.

**Grand Trunk Line of Canada.**

Below we give a portion of the Appendix to the prospectus of this company (published last week,) which sets out more fully the route, objects and business prospects of this scheme. Every thing relating to a work of such magnitude and general importance, will be read with interest:

We copy the following:

The Grand Trunk railway of Canada, with the Atlantic and St. Lawrence railway of Maine, 1112 miles in length, with an uniform gauge of 5 and 6 inches, as now brought under the notice of the British public, offers the most comprehensive system of railway in the world. Protected from the possibility of injurious competition, for nearly its entire length, by natural causes as well as by legislative enactment, it engrosses the traffic of a region extending 809 miles in one direct line from Portland to Lake Huron, containing a population of nearly three millions, in Canada, Vermont, New Hampshire and Maine. At Portland it connects with the system of railways reaching eastward towards the province of New Brunswick, and hereafter to Halifax in Nova Scotia, as well as southward, by lines already existing to Boston and N. York. At the frontier of Canada it again unites with other lines to Boston and the great manufacturing districts of New England. From Richmond it runs eastward to Quebec and Trois Pistoles 258 miles, giving direct access to the great shipping port of Canada in summer, and hereafter by rail to the Atlantic at Halifax by Trois Pistoles and Mirimichi, forming the only route to the two fisheries of the Gulf of St. Lawrence, and the eastern timber, coal and mineral district of New Brunswick. At Montreal it again meets three railways now in operation to Boston and New York. At Prescott it receives the tributary line from Bytown and the vast timber districts of the Ottawa, sixty miles, now in course of early completion; and on the opposite side of the St. Lawrence, the northern New York road to Ogdensburg, will pour its stream of passenger traffic upon the Trunk line. At Kingston the Rome and St. Vincent railroad, also from New York, becomes its tributary. From thence to Toronto it receives the entire produce of the rich country north of lake Ontario, through the channels of Belleville and Peterborough branch, and several other new lines already in progress to construction, and all tributary to the main trunk road. At Toronto the Ontario, Simcoe and Huron railroad, one hundred miles, now nearly finished pours in the traffic of the region around lake Simcoe and Georgian bay. At the same point is also met the Great Western railroad by Hamilton to Detroit, 240 miles, now in a forward state of completion, by which communication is had with the southern part of Western Canada, as well as with the railways in operation from Detroit to the states of Michigan, Illinois and Wisconsin.

From Toronto westward, the line passing thro' the heart of the western peninsula of Canada ensures to the Grand Trunk the exclusive traffic of the finest part of the province, while at its terminus at Sarnia it debouches at the very outlet of lake Huron, avoiding the shallows of the Detroit and St. Clair rivers below—a point the most favorably situated for the navigation extending through lakes Huron and Michigan, and hereafter through lake Superior. At Sarnia, the American railroads now in course of construction, place the Grand Trunk line in the most direct communication with the arterial lines to the Great West and the Mississippi, a region whose advance in population and wealth has been regarded as almost fabulous, and yet whose resources are still very partially developed, while the traffic of the copper and iron districts of lake Superior, the most valuable and extensive in the world, with the coal of Michigan, will accumulate on the railways at this point, reaching ocean navigation at Montreal in much less time and by the same mileage that it can now pass by boat to the waters of lake Ontario, 350 miles above that city.

The Grand Trunk railway of Canada, it will be therefore seen, commencing at the debouchure of

the three largest lakes in the world, pours the accumulating traffic in one unbroken line throughout the entire length of Canada, into the St. Lawrence at Montreal and Quebec, on which it rests at the north, while on the south it reaches the magnificent harbors of Portland and St. John's on the open ocean. The whole future traffic between the western regions and the east, including Lower Canada, parts of the states of Vermont and New Hampshire, the whole of the state of Maine, and the provinces of New Brunswick, Nova Scotia, P. Edward's Island and Newfoundland, must therefore pass over the Grand Trunk railway.

This great and comprehensive scheme of railway communication throughout the most wealthy, populous and important colonial dependency of Great Britain, is not now offered as a few project to the public. It comes with the guarantee of the province of Canada, which has embarked upwards of two millions sterling in the enterprise; it is supported by the most intelligent, far-sighted men in the colony, and it has the security of nearly half a million sterling of private Canadian capital invested therein, while a conviction of the great benefits of unanimous action has provided a combination of railway interests probably never before seen, and ensuring such an energetic and harmonious working of the entire line, as cannot but produce the most satisfactory results.

The Grand Trunk Railway does not rest for its success altogether on anticipations. The entire section from Portland to Montreal, of 290 miles, is now in operation for 250 miles, and will in July next be fully connected, making the shortest and most easy communication between the River St. Lawrence and the Atlantic ocean. This part of the line forms in itself a complete railway, opening up an entire new channel for the western trade; and giving an outlet in winter for the produce of Eastern Canada, as well as of that of western Canada east of Kingston. The line from Quebec to Richmond brings Montreal and Quebec within six hours of each other, and opens to those cities the most direct access to the ocean at Portland, Boston and New York, passing through a most populous and fertile part of Eastern Canada. To Montreal, until the completion of the western section of the trunk line, the produce of the countries surrounding the great lakes is brought through the most magnificent inland navigation in the world, and the opening of the line to Portland at once secures the supply of the markets of Maine, New Brunswick and Nova Scotia with breadstuffs, receiving in return via Portland, British and American manufactured goods, West Indian produce, &c. The lines from Montreal to Portland, and from Richmond to Quebec, already known as the St. Lawrence and Atlantic and Quebec and Richmond Railroads, will be in full and continuous operation in the course of the present summer, comprehending 390 miles of railway for which the capital has been entirely provided, with a very small exception. The receipts on 72 miles, in Canada, from the mere local business, for the first twelve months from their opening, at 20th October, 1851, were \$4,000. On 91 miles of the line from Portland, now under lease, were, for the same period, \$8,000. Assuming the same rate per mile on the entire distance of 390 miles, a gross income of 172,300 will be at once obtained from local business; while the total traffic, if estimated by the receipts per mile of the Ogdensburg road, 25¢ per mile per week, the latest American railroad offering any parallel, will amount to a sum of 507,000, independent of the great future development of the country opened up by the line. It may be assumed that the revenue of the Company, from the sections to be completed in 1853, will not fall short, at once, of 304,200 per annum, net, allowing 40 per cent for working expenses, and deducting 60,000 for lease of Portland line, would leave nearly

*equal to the charge for the entire mortgage debt of the Company, and thus from actual present earnings securing to the bondholders their interest, on all the capital intended to be raised by debentures.*

It is proposed, simultaneously with the construction of the railroad westward, to proceed with

the bridge over the St. Lawrence, at Montreal.—A work of this stupendous character, required to span a navigable river of two miles in width, can only be undertaken by a large combined capital, and is justified by its paramount importance.—The site selected is at the sole point on the river St. Lawrence, from the great lakes to its mouth, where a bridge can be placed without interfering with the navigation. And also at that point no less than 1,595 miles of continuous railway, now in operation, with a very insignificant exception, from New York, Boston, Portland and Quebec, arrive on the south shore of the river opposite to Montreal, a city containing 60,000 inhabitants.—On the northern shore, the railways either in progress or completed, including the western section of the Grand Trunk, number already 967 miles, exclusive of projected lines. The completion of this link is essential to the satisfactory and economical working of the Grand Trunk Railway, and it has therefore been incorporated with the entire line. It will be constructed according to the plans and under the superintendence of Robert Stephenson, Esq., C. E., (who is about to visit Canada for this purpose,) and Alexander McKenzie Ross, Esq. C. E.; and the structure will be of that substantial character, which a work of such magnitude requires.

For the bridge an ample allowance of capital is made, and the work has been provisionally contracted for with Messrs. Peto, Brassey, Betts and Jackson, on the estimate framed by Messrs. Stephenson and Ross. The Act, authorising the construction of this bridge by the Grand Trunk Railway Company, is now in progress through the Canadian Parliament, under the sanction of the Government.

The western section of the Grand Trunk line extends from Montreal to Toronto, 345 miles, and from thence to Sarnia, 172 miles. Contracts have been executed, with the approval of the Government and Board of Railway Commissioners in Canada, with the eminent English contracting firm of Messrs. Peto, Brassey, Betts, and Jackson, for the construction of the section to Toronto, 345 miles, from Quebec to Trois Pistoles, 155 miles, and the Grand Junction, fifty miles; and with the Canadian contracting firm of Messrs. C. S. Gzowski and Co., from thence to Sarnia, 172 miles.

The condition of these contracts are for the construction of a first class, single-track railway, with the foundations of all the large structures sufficient for a double line, equal in permanence and stability to any railway in England, including stations, sidings, work shops, ample rolling stock, and every requisite essential to its perfect completion, to the satisfaction of the Canadian Government.

By means of the arrangements entered into with the contractors, the proprietors of the Grand Trunk line are assured that, for the capital stated they will secure the delivery of the whole railway fully equipped and free from any further charges whatever.

The western section of the Grand Trunk commences at Montreal, and proceeds westward thro' the towns and villages of Lachine St. Clair, St. Anne, Longueil, Lancaster, Charlottenburg, Cornwall, Osnabruck, Williamsburg, Matilda, Edwardsburg, Augusta, Elizabeth Town, Yonge, Lansdowne, Leeds, Pittsburg, to Kingston, at the outlet of lake Ontario, and the principal naval and military station in Canada West. From thence continuing along the north shore of lake Ontario it passes through Ernest Town, Napanee, Shannonville, Belleville, Port Trent, Brighton, Coborne, Grafton, Cobourg, Port Hope, Bond Head, Bowmanville, Whitby, Pickering, Scarborough to the city of Toronto, which city contains 36,000 inhabitants.

At Toronto it meets the Great Western railway leading through Hamilton and the southern part of the western Peninsula of Canada to Detroit; a connection of which the value may be judged from the favorable position in which the Great Western railway of Canada now stands in London. This

line itself forms a continuation of the Trunk line although under a different company, for 240 miles now approaching completion. The Trunk road also here connects with the Northern railroad to Lakes Simcoe and Huron, 99 miles to be finished during 1858.

This section occupies the important position of connecting the chief emporia of eastern and western Canada, the cities of Montreal and Toronto, numbering together nearly 100,000 inhabitants besides passing through the towns already enumerated; and it also passes, throughout its entire length, through the most populous and cultivated district of the province.

The section west of Toronto to Sarnia passes through the towns and villages of Weston, Brompton, Georgetown, Acton, Rockwood to Guelph, Berlin, Petersburg, Hamburg to Stratford, where it is intersected by a proposed line to Goderich, 45 miles north (for which £125,000 has been already raised by municipal subscription,) thence through or near Downie, Fullarton, Blanchard, Osborne, Biddulph, Bosanquet, Warwick and Plympton, to the outlet of Lake Huron and the western extremity of the province at Port Sarnia; the whole course of the line being through the finest section of western Canada, a district already well peopled and most rapidly advancing in population and wealth.

It will be seen, therefore, that the western section of the Grand Trunk line, in its connections, embraces the whole of Canada West, a district of 32,000,000 of acres, with a population doubling itself every ten years, and which, with a limited exception, must find in the Grand Trunk railway their speediest, most direct, and cheapest intercourse; having neither local railroads nor canals to compete with.

Independent of the local traffic peculiar to this section, both in passengers and goods, through traffic of more than ordinary extent, consequent on its geographical position, may be safely calculated upon.

Not the least important branch of traffic will arise from the ocean steamers communicating with England, making Portland, and hereafter Halifax, the port of embarkation, as the nearest and most accessible on the continent of America.

A further and more important consideration in connexion with Portland, St. John's and Halifax, is that the navigation is never closed by ice, produce may, on the completion of the Grand Trunk railway, be shipped there when otherwise there would be no ready means of forwarding it to Europe.

Thus, with the exception of that portion of Nova Scotia to the port of Halifax (about 150 miles) the entire length of 1,400 miles, both by the southern route through the State of Maine, and by the northern route by Trois Pistoles, is for a great part in course of construction, and the remainder will shortly be commenced under highly favorable auspices, the immediate prosecution of that portion through Nova Scotia being now under the consideration of the Government of that province, whose future interests are so largely compromised in the speedy and perfect completion of the project, as to ensure their best and strenuous efforts for its early accomplishment.

The following gentlemen are connected with the scheme as Directors, or otherwise:

*Directors in London*—Thomas Baring, Esq., M. P., and George Carr Glyn, Esq., M. P., Agents of the province of Canada, and Directors of the Co., on behalf of the Canadian Government; Henry Wollaston Blake, Esq.; Robert McAlmont, Esq.; Kirkman Daniel Hodgson, Esq.; Alderman W. Thompson, M. P.

*Directors in Canada*—The Hon. John Ross, Member of the Legislative Council, Solicitor General for Upper Canada, President; the Hon. Francis Hincks, M. P., Inspector General; the Hon. E. P. Tache, M. L. C., Receiver General; the Hon. James Morris, M. L. C., Postmaster General; the Hon. Malcolm Cameron, M. P., President of the Executive Council; the Hon. R. E. Caron, Speaker

of the Legislative Council; the Hon. Peter McGill, M. L. C., President of the Bank of Montreal; Geo. Crawford, Esq., M. P., Brockville; Benjamin Holmes, Esq., Vice President of the Atlantic and St. Lawrence Railway Company; W. H. Ponton, Esq., Mayor of Belleville; W. Rhodes, Esq., Quebec; E. F. Whittemore, Esq., Toronto.

*Bankers in London*—Messrs. Glyn, Mills & Co., and Messrs. Baring Brothers & Co.

*Engineer in Chief*—Alexander McKenzie Ross, Esq.

*Assistant Engineer*—Samuel Keefer, Esq.

*Secretary in Canada*—C. P. Rodney, Esq.

*Solicitors in England*—Messrs. Swift and Wagstaff, 30 Great George street, Westminster.

*Solicitors in Canada*—G. E. Cartier, Esq., M. P., Montreal; John Bell, Esq., Belleville.

#### Splendid Passenger Cars.

The Michigan Central railroad Company have just put on their road twenty-two first-rate passenger cars, which have been built in their own workshops, and under the superintendence of experienced builders. Each of these are 60 feet long and constructed not only with reference to their elegant appearance, but with a due regard for strength, durability and convenience of passengers. Each car is intended to hold seventy-two passengers, and the seats in each are the same width as those in the cars of the New York and Erie railroad, which is a six feet track; the passage way running between the rows of seats is a little narrower, and is the only difference. Each seat will conveniently hold two persons of the largest size, without crowding, and a moderately sized couple can allow a little child of five or six years of age to sit between them; or two ladies in the most fashionable dresses might occupy the same seat without fear of disarranging the folds in each other's skirts. These cars are supported on trucks of the most approved construction for ease, the manner in which they are placed on them giving the body the same easy motion that the traveller perceives in one of Putnam's thousand dollar carriages. The trucks run on six wheels each of the best manufacture. All these cars are provided with fountains to supply passengers with iced water.—*Detroit Advertiser.*

#### Third Annual Report of the Memphis and Charleston Railroad.

The third annual report of the directors of the Memphis and Charleston railroad company, was submitted to the stockholders on the 4th inst., at their meeting at Huntsville, Ala.

The line of the road extends from Memphis to its junction with the Nashville and Chattanooga road, in the valley of Crow Creek, in north-eastern Alabama, a distance of 273½ miles, exclusive of a branch of two miles, from the town of Tuscumbia to Tuscumbia Landing; and another from Moscow to Sommerville, 13 miles long,—making an aggregate of 288½ miles.

The main trunk comprises two divisions called the eastern and western; the former extending from Crow Creek to the eastern boundary of Alabama, 150 miles, and the latter from said boundary to Memphis, 123½ miles.

Of the former, the distance between Tuscumbia and Decatur, 45 miles long, occupying the line of the old *Tuscumbia and Decatur* railroad is nearly completed, 35 miles being in actual operation. The remainder will soon be finished. From Crow Creek to Decatur, 32 miles, and from Tuscumbia west, 15 miles, in all 97 miles, the line is under contract.

The following statement shows the expenditure already incurred upon the eastern division, together with the amount estimated as necessary to complete it:

Amount expended between Tuscum- bia and Decatur.....	\$115,534 62
Do. do. for rails, chairs, spikes, etc., between Tuscumbia and Decatur..	224,954 64
Do. do. for equipment.....	34,504 94
Do. do. for engineering.....	29,998 90
Miscellaneous.....	87,059 34

Total amount expended on eastern division.....	\$443,020 04
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The total estimated cost of this division is as follows:

Amount expended be- tween Tuscumbia Landing and Deca- tur.....	\$297,491 52
Amo. required to com- plete and equip the same.....	70,000 00
Amo. required for pur- chase of "Tenn. Val- ley railroad".....	75,000 00
Amo. required to complete grading and masonry.....	574,446 43
Do. do. do. bridges and trestles.....	112,100 00
Do. do. do. 107½ miles superstructure at \$9000 p. mile.	967,500 00
Do. do. do. engineering and contingencies.....	82,702 00
Do. do. do. engines, cars, ware-houses, right of way, etc.....	215,000 00
Add amount paid for grading and masonry.....	115,534 62

Whole cost of eastern division. \$2,509,774 57

Average cost per mile of road con-  
structed.....

14,538

In reference to the state of the work upon this division, the engineer in his report says:

The grading and masonry from Crow Creek to Decatur are to be completed by the end of the present year; the superstructure around the Muscle Shoals will be finished by the 1st day of June next. The contractors for grading and masonry west of Tuscumbia were allowed until May 31, 1854, for the completion of their works; as yet they have barely made a commencement; they have not been urged to a stronger demonstration on account of the intermediate condition of our western connection; as that shall assume a more definite aspect, it will be easy to press that work to completion within the contract time.

The masonry of Tennessee river bridge will probably be ready to receive the superstructure this year, and early in the spring of 1854 the whole structure can be raised. No impediment will then lie in the way of constructing the track from Crow Creek to Decatur. With this prospect in view, no time should be lost in providing for the iron and timbers. If the Nashville and Chattanooga railroad should be completed in season, a portion of the iron could be received through that channel from the Atlantic, and forwarding the remainder by Tuscumbia Landing. The superstructure could advance in both directions. This arrangement affords a reasonable expectation of completing the eastern division in the whole of the year 1854.

#### WESTERN DIVISION.

This division comprises, as before stated, that portion of the road which lies in Tennessee and Mississippi, is 123½ miles in length on the main trunk, with a branch of 13 miles from Moscow to Sommerville; 93½ miles of the main trunk will be in Tennessee and thirty miles in Mississippi.

The contracts made on this division embrace the Grading, Trestle-work and Superstructure, Depots &c., for 60 miles, extending from Memphis to a point one mile east of LaGrange. The grading is nearly all completed, and the track is laid forty-one miles; two miles east of Moscow and 8 miles from LaGrange.

The expenditures on the Western Division have been—

For grading and drains.....	\$59,050 16
" Iron rails, spikes, chairs, switches, frugs, &c., (including freight) .....	198,925 56
" Cross ties.....	18,857 54
" Laying track and Trestlework.....	30,636 65
" Depot buildings, wells, tanks, &c. ....	24,944 49
" Cars, Engines, &c. ....	51,720 80
" Engineering .....	16,758 58

Amount disbursed..... \$400,893 78

To complete existing contracts, there will be required—

For State's Interest in old LaGrange & Memphis railroad.....	\$15,000
" Grading and drains.....	5,641 32
" Iron Rails.....	42,781 90
" Cross ties.....	5,828
" Laying Track and Trestle-work.....	6,500
" Equipment and Depot Buildings..	30,855 58
" Engineering, right of way, and con- tingencies .....	1,054 67

Whole cost of constructing and equip-  
ping 50 miles..... \$508,065 25

Average cost per mile of road con-  
structed..... \$8,161 30

The Grading, Trestle work and Cross ties of the  
Sommerville Branch will cost, by agreement, no  
more per mile than the same portions of construc-  
tion on the main trunk.

<i>Estimated Cost of the Sommerville Branch:</i>	
Grading, drains, Trestles and Cross ties	\$26,393 55
Iron Rails, spikes, chairs and laying track.....	110,500
Equipment, Warehouses, &c., .....	20,000
Engineering .....	1,000

..... \$157,893 55

The whole cost of the Western Division is esti-  
mated as follows:

Road completed and equipped from Memphis 50 miles east.....	\$508,065 25
Grading and Masonry on to E. bound- ary of Mississippi.....	423,000
Bridging and Trestles.....	30,800
Superstructure, $73\frac{1}{2}$ miles, a \$9,000 per mile.....	661,500
Engines, cars, warehouses, shops, right of way, wells, &c., a \$2,000 per mile .....	147,000
Sommerville Branch, completed and equipped.....	157,893 55
Engineering and contingencies .....	55,740

Amounting to..... \$1,983,998 80

Average cost per mile of road con-  
struction .....

..... \$12,534 80

The total cost of the road will therefore be as  
follows:

Cost of Eastern Division with branch, 152 miles.....	2,509,774 57
Cost of Western Division with branch, $186\frac{1}{2}$ miles .....	1,983,998 80

Total .....

..... 4,498,778 87

Average cost per mile..... 13,576

The above exceeds the first estimate made by  
Mr. Garnett, by the sum of \$993,773 00; which is  
made up of the following items:

Cost of Branches not estimated by Mr. Garnett.....	\$175,000
Increased cost of Superstructure, conse- quent upon the increased price of iron. ....	568,500
Increase from enhanced rates of labor... ..	250,278

..... \$993,773

The capital stock subscribed is \$2,516,425.—A  
large portion of this sum is made up of corporate  
subscriptions, and nearly the whole line may be  
considered available at its par value. Added to  
the resources of the Western Division will be the

State loan, equal to \$8,000 per mile upon  $93\frac{1}{2}$   
miles of road, or an aggregate sum of \$750,000;  
increasing the present available means of the Com-  
pany to \$8,266,425.

The "Mississippi Controversy," as it is termed,  
occupies considerable prominence in the report.—  
The line of the road only runs through a portion  
of the state of Mississippi; and the authority for  
this purpose is coupled with a condition requiring  
the Company to construct their line by way of  
*Holly Springs*. To do so would, it is claimed, in-  
volve the construction of 10 miles of additional  
road, and at an increased expense of \$648,681 over  
the more direct route. These are considered as  
insuperable objections to the adoption of the Holly  
Springs route, and, it is claimed, should absolve  
the Memphis and Charleston railroad company  
from the obligation of adopting it. They have  
been able, however, to obtain no modification of  
their chartered rights in Mississippi, and they in-  
timate that, in case no relief can be had, they will

construct the necessary link through Mississippi  
under the authority given to the *Mobile and Ohio*  
road, to construct a road upon the *convenient* line  
for the Memphis and Charleston. While Holly  
Springs route is a more expensive one, it would at  
the same time, probably, supply a larger amount  
of traffic than any other; and parties interested in  
its construction offer a subscription to the stock of  
the company of \$500,000, in case of its adoption.  
The controversy is mainly *local* in its character,  
and is referred to in the report, principally for the  
purpose of explaining why an important portion of  
the line has not been placed under contract. As  
Holly Springs is soon to be supplied with railroad  
accommodations by means of the *Mississippi Central Railroad*, the controversy referred to will, we  
presume, be adjusted, so as to allow the Memphis  
and Charleston road to proceed in the construc-  
tion of that portion of their line lying within the  
State.

In reference to the proposed extension of the  
road, east from Crow Creek to Chattanooga by an  
independent line, the Engineer, in his report,  
says:—

"At this juncture, when your resources are so  
heavily taxed for the consummation of your great  
project, according to its original design, perhaps  
your Board will not consider it seasonable to con-  
sider a proposition which will demand a large ac-  
cession to your capital stock; and yet it is not  
deemed inexpedient to bring to your notice the  
question of your eastern terminus, and to glance  
at the reasons which seem to favor an eastward  
extension and a termination at Chattanooga.

The route will penetrate a rich coal region, af-  
fording constant occupation for your trains in sea-  
sons otherwise dull, resulting, probably, in the de-  
velopment of large manufacturing interests along  
the line, which would, in turn, react most favora-  
bly upon the Road. You would intersect the fer-  
tile valleys of Battle Creek and Sequatchee, taking  
a monopoly of their valuable trade, the importance of  
which would be second to none on the whole  
route.

These considerations leave nothing to desire on  
the score of local profits, but more comprehensive  
benefits would flow from the proposed extension.  
Chattanooga is the point at which transhipments  
of freight and passengers will be made from train  
to train; and it is not politic to confide to an inter-  
vening and perhaps a rival party the great inter-  
ests that must arise at the point of exchange, when  
the construction of 45 miles of self-sustaining rail-  
road would place you on the ground where those  
interests may be directly controlled to your best  
advantage. A junction at Crow Creek with the

Nashville and Chattanooga railroad will require a  
second transhipment or an interchange of trains;  
the one too expensive an operation to be frequent-  
ly repeated, injurious to packages and inconven-  
ient to travellers; the other, a fruitful source of em-  
barrassment, involving vexatious questions of car-  
rent, and the equitable adjustment of claims for  
loss, damage and detention, from which you can  
only be relieved by transacting your business on  
your own road and in your own trains. Tariffs of  
charges and schedules of time, suitable to the in-  
tervening company, might result to you in great  
injury, inconvenience and loss.

It is hoped that the great advantage promised  
by this modification of your first plan, will warrant  
the Board in taking such initial steps as will as-  
certain the cost of the extension, and the means  
which can be collected for so desirable an object.

Resting upon Memphis, the commercial heart of  
the Mississippi valley, it will perfect the symmetry of  
your enterprise to embrace Chattanooga, the  
*entre-pot* of the South-Atlantic; whence, its mighty  
traffic having climbed from the Ocean, is first fair-  
ly launched upon its western destination."

The completion of this great work may be con-  
fidently looked for, in all, in 1854. One-third of  
the entire line, making 95 miles, will be in opera-  
tion in a few weeks, and will at once engage in a  
lucrative business, and will yield a revenue more  
than sufficient to defray all the liabilities of the  
Company, and such as may be necessary to incur  
to complete the entire road. The Company are in  
possession of ample means to push forward the  
work upon the whole line with vigor.

The Memphis and Charleston road is one of the  
most important projects in the United States. It  
will form a point of one of the *shortest* lines of road  
between the Atlantic and the Mississippi. At Chat-  
tanooga outlets will be opened, both to Southern  
Atlantic cities by the Western and Atlantic road,  
and in a northerly direction by the roads traversing  
East Tennessee. It traverses, for nearly its entire  
extent, the valley of the Tennessee River, which is  
not only one of the largest settled and richest  
portions of the Southern States, but celebrated  
throughout the country for the excellence of its  
soil and climate. It runs exactly in the direction  
to accommodate the business of the section tra-  
versed, and we see no reason to doubt the great  
productiveness of its stock, in addition to the vast  
benefits it must be the means of conferring upon  
the whole country within its influence.

#### Cincinnati Hamilton and Dayton Railroad.

The annual meeting of the Stockholders of the  
Cincinnati Hamilton and Dayton Railway was held  
in Cincinnati, on Monday. The annual report  
was presented. The following is the statement of  
earnings:

From passengers.....	\$191,700 93
From freight.....	122,377 25
From mail and Express.....	7,714 99

Total earnings.....	\$321,798 17
Running expenses, including interest, taxes, &c.....	\$187,064 00
Surplus fund.....	41,000 00

The earnings for the month of April were as fol-  
lows, showing an increase of over 76 per cent, as  
compared with last year:

	1853.	1852.
Passengers.....	\$20,651 92	\$14,314 72
Freights.....	14,291 88	4,864 26
Mail and Express.....	1,008 08	801 80

Total..... \$36,051 88 \$20,481 28

The old Board of Directors were unanimously  
re-elected.

**Science versus Accidents in Railroad Movement.**

In every operation to adapt matter to the wants and wishes of man, nature provides the raw materials and the powers we use. A better knowledge of these materials diminishes our labor, and a better choice of these powers renders our work more effective. For this better knowledge and choice we are indebted to ingenious men who discover the elements and movements of nature, and adapt them to the arts of civilized life. This progress of effective labor is marked by striking changes in the choice of powers. A great change for the better was made when the force of the locomotive on the boat and on the road, took the place of the force of the winds and brute animals.

This was a change for the better as to economy but especially as to the safety of property and life and more especially on the road than on the boat.

Immediately after two horrible railroad accidents may seem a singular time for invoking public attention to the increase of safety for life and property by changing from horse-power, wind-power and steamboats to the rapid power of the locomotive on iron rails. But, we are led by these very accidents, to take up this subject at the present crisis; not because we are fond of dealing with a case of seeming difficulty, but because the public mind is now deeply moved, and may be disposed to go along with us into a thorough examination of the causes of railroad accidents, and to demand available remedies.

The use of the locomotive on the iron rail favors the safety of property and life because the elements employed are subject to the entire control of scientific and skilful men. The winds, the waves and brute animals cannot be brought under the complete control of the most accomplished masters; but, there is no possible accident on the railroad, against which effectual provision cannot be made by competent and faithful men. The natural agents and materials which they use can be exactly measured as to their strength and force; they conform always to fixed laws and those laws can be perfectly known. The ship which is wrecked by a storm teaches no other shipmaster how to defy future storms; but every accident by a train suggests the way to avoid a similar accident in future. The broken axle which caused the death of the only child of President Pierce, showed a weakness manifestly caused by cutting away the surface of the axle to make a groove for a washer, and suggested to the iron master that no such cutting should be made in future axles.

To attain the highest result of railroad movement, there need not be a strained use of any part of the road nor the rolling stock. If the road is properly made and faithfully kept; if the rolling stock is built in the best manner, and always maintained in complete repair, the safety of the movement will be measured by the competency and fidelity of all and each of the men employed in the whole operation. The experience on several of our railroads where the highest speed is attained, shows that the fewest accidents have happened to the swiftest trains, and these rare accidents have rarely arisen from high speed. The reason of this result is found in the superior preparation and care in the running of express trains.

Railroad accidents naturally divide themselves into two classes: those which a more perfect ap-

plication of science will entirely prevent; and those which can be prevented only by a perfect competency and fidelity in the persons employed about the movement of the trains.

First, let us examine the former class; the accidents which science promises to prevent by taking them out of the region of casualty, and substituting a perfect for an imperfect machinery.

Scientific men who are most familiar with railroad matters regard the present state of the whole complex machine called a railroad, as a state of infancy. The locomotive is the part most perfect. On this most care and thought have been bestowed. No accident in the locomotive endangers the life of the passenger. But almost every part from the road bed to the communication between the two ends of the train, is a hopeful subject for improvement. Every improvement is one more exposure taken from the side of imperfect machinery or human carelessness or ignorance and turned over the safe-keeping of science.

Our first view of a mortal accident was near Princeton, on the Jersey road about twenty years ago. It was the breaking of an axle, and 7 were killed. This led to numerous plans for preventing future calamities in case of the breaking of a wheel or axle, and an effectual remedy is now probably invented.

Our next accident was at Mamaroneck on the N. Haven road, and was caused by a wrong turn of the switch on a single track road. Here also we escaped unhurt. But this cause of accident, (the most frequent and the worst to provide for) will cease when all roads have double tracks. The switchman has the very worst and most difficult office on the road—he is a watchman without a walk, and extremely liable to forget or slumber. In the factories they have an alarm clock which will wake the whole town if the watchman does not move the hand of it backward every 5 minutes. We have thought of this clock for the switchmen; but the true remedy is to dispense with the switches as far as possible. The switch-man at Mamaroneck was puzzled by a third train from the Housatonic road.

The next accident we saw, without being in the train, was caused by the breaking of a chair and the consequent spreading of the rails on a short curve. No lives were lost, but the injury to property was large. That curve in the road might have been avoided at less cost than was involved in the injury to that one train. But, moreover, the rails cut off, and merely placed together on a cast-iron chair, is a most clumsy arrangement; and calls for amendment more loudly than other imperfection of the railroad. We have often walked along the track of a railroad to see what proportion of the chairs were unbroken, and cobbled up by extra spikes. More than one in five are more or less broken on every road we have observed. But the combined or Winslow rail is a remedy for this danger; and can be so constructed and put down as to be immovable, at the highest speed, on the shortest curve.

Another accident of great danger to life, is the collision on cross-tracks and on country roads.—This danger suggests the remedy which is every where applied in Europe: No such crossings should be permitted without a bridge. And accidents will compel the adoption of this rule in our country.

The last great accident (and it is not the first one of the kind) was that of the draw bridge at Norwalk. We have looked to the daily papers for some hopeful suggestion of a remedy for this danger, but, among them all, we have not noticed the only two which have occurred to us, as being effectual and just. Nine-tenths of the drawbridges on the roads along the Sound and the Hudson should be abolished, and they will be abolished as fast as the progress of scientific locomotion forces itself into legislation. The idea, that millions of lives are to be perilled for the sake of a saw mill, when the business of that mill may be as well done on rails, is too absurd to be entertained by any but a foggy advocate of vested rights, who is past being reasoned with,—and such cannot continue "by reason of time." In the few cases where the amount of business done beyond the bridge warrants its continuance, there the movement requiring half an hour must wait for the movement requiring half a minute—the boat must wait for the train—the snail for the eagle. If any one doubts our view of this matter, we advise him to read the opinion of Judge Stones and Judge Taney in the case of Charles River Bridge.

Next come the accidents incident to the entering of trains into large towns. This subject is too large for a paragraph. We have much yet to learn on this topic from foreign experience, and much from the suggestions of ingenious men among ourselves. Our city authorities have appointed a standing committee for inquiry and suggestion as to the best plans.

We come now to the long chapter of accidents arising from the carelessness of passengers themselves.

The statistics of injury to passengers show that four-fifths of the whole arise from passengers being where they ought not to be, and doing what they ought not to do. The travelling public have not become schooled to the danger of every deviation from the laws of the train. Standing about the train, walking on the tracks, passing in and out while the train is in motion, standing on the platforms, and riding in the baggage cars, have cost great numbers of lives, while a seated passenger is rarely injured. All that can be done to keep passengers from exposing themselves to danger, must be done by the officials of every railroad company; for few persons travel so much as to be safe without regulations. On a road that never lost the life of a passenger, we have known two gentlemen, officially related to the Company, injured on the same day. The one by getting on, and the other by getting off the trains while in motion.—The station house should stand across the road, with a platform on each side, and none should get in or out across the track where another train may come suddenly upon them. This very day we have witnessed a narrow escape of passengers standing on the vacant track.

But, when science and contrivance have done their utmost to diminish the hazard of railroad movement, there will always remain a certain measure of danger, arising from the inexperience or carelessness of those entrusted with the several parts of the movement. And the accidents from this source are of the second class.

In diminishing these accidents, the remedy or preventative must be applied to the men, the voluntary agents and instruments, who are to be co-

operated with the machinery, and with each other to execute the whole designs of the movement.—A perfect railroad official is the highest order of machinery—an intellectual, voluntary, yet subordinate and unwavering machine. He governs his own department of the work, but obeys mechanical laws. He is a wheel or a spring in the most complicate clock, while that clock runs by an arbitrary time table, which is liable to have its whole dial changed at any day.

If such a character is required at each one of several hundred different posts and services of a railroad, what then should be the capacity and qualifications of a superintendent? He has need to be a sort of ubiquitous demi-god,—a master of all the science involved in the contrivance and construction of the complex system called a railroad. But as ubiquity is denied to mortals, he has need of a genius to supply its place, by a system of detective checks, reports, examinations and records which expose the smallest delinquency, at the remotest point, at the earliest time. All persons in the service must somehow be aware of his universal presence by feeling the pressure of his plans; and all must be his cheerfully obedient servants.

Every person taken into the service should come with a sufficient education to be a fair candidate for promotion. He should bring a clean bill of health, and be subjected to a rigid examination as to his past history. Postboys used to be examined as to their wind; but a railroad official should be especially tested for a vigilant eye, a steady hand and a pure breath.

We have a deep conviction, that no man should be employed on the movement of a railroad, who is or ever has been addicted to intoxicating drink. This rule would exclude some men of high capacity and large experience; but extensive observation and careful inquiry into accidents on railroads and steamboats more than justifies this rule of exclusion. We omit painful instances to spare the feelings of men, but we shall not cease to agitate this topic until the rule is universally adopted and faithfully carried out. To impress the public mind with the vital importance of this rule, we now assert, and challenge contradiction, that a majority of all the railroad accidents resulting from human carelessness, can be fairly, and directly traced to the influence of intoxicating drink.

Our readers will now be ready to agree with us, that the directors of our railroads ought to be men of great capacity, sound judgement, and large experience. For they are in some sense the creators of the whole machine, and of all agencies concerned in its movement. We have little confidence in severe penalties; but we will say to railroad directors, that the public intend to hold them to a severe account for employing incompetent men—and most especially men rendered periodically incompetent by drink.

#### Philadelphia and Cincinnati.

An arrangement has been concluded between the Ohio and Pennsylvania railroad company, and the Cleveland and Columbus company, for through ticketing and the interchange of passengers at Crestline. Passengers are to be ticketed through from the Queen City to Pittsburgh and Philadelphia. The time from Pittsburgh to Cincinnati, both ways, is to be but fifteen hours, and the fares are to be greatly reduced from the present rates. This arrangement takes effect on the 16th inst.

#### Commerce of the St. Lawrence—Canadian Canals.

We have received from Quebec "Tables of the trade and navigation of the Province of Canada for the year 1852." These tables fill a large volume of 448 pages, and contain detailed statements of much importance to the mercantile community. We give some particulars:

(we omit shillings and pence.)	£1,689,244
To the N. American colonies.....	208,036
British West Indies.....	8,460
United States.....	1,571,130
Other foreign countries.....	48,123

Total..... £3,513,993

The value of imports during the same period:

From Great Britain.....	£2,667,783
North American colonies.....	120,238
British West Indies.....	1,278
United States.....	2,119,424
Other foreign countries.....	152,899

Total..... £5,071,623

Tonnage entered from British ports 410,459; outward to British ports, 567,259. Ditto from foreign ports 152,783, to foreign ports 10,800.

The gross amount of duties collected in 1852 was £739,263.

Comparing these with the two previous years, we have the following figures:

In 1850 exports 2,990,428; imports 2,245,517; revenue from customs 615,694.

In 1851, exports 3,241,180; imports 5,358,697; duties 737,439.

In 1852, exports, 3,513,993; imports 5,071,623; duties 736,263.

The preceding figures show the gross revenue: The charges for collection in 1850 were 84,463.; in 1851 35,231; in 1852 33,640.

In these sums is included money paid for return duties, averaging upwards of £2,000 per year.

From these figures it appears that the revenue derived from the custom duties is very large, and far in excess of the actual needs of the province.

In 1852 the exports from Canada consisted in the produce of the mine, £8,394; ditto of the sea, £74,462; ditto of the forest £1,644,584, animals and their produce £295,929, vegetable food £1,157,020; other agricultural products £24,343; manufactures £19,783; other articles £26,875.

A comparison with the two former years does not show any remarkable change in any of the preceding items.

The returns of the revenue received from the canals, and the amount of property passing thro' them, are very full. The gross revenue from all the canals for the year 1852 was £89,889. This consisted of tolls £86,431, Welland canal fines £711 17 6, ditto rents £1,241, St. Lawrence canal fines £14,10 1, storage and hydraulic rents \$1,457, ditto, ditto, Chambly Canal £38. The charges for collectors' salaries, lock tenders, masters, etc., £15,209, tolls refunded, £1,224, repairs £16,830.

Making a total of £38,264, and deducting this sum from the gross revenue, we have a net revenue of £56,625 from all the canals for the past year.

The tolls on the particular canals in the same period were: Welland £57,528; St. Lawrence £21,177; Chambly £1,907; Burlington £4,053, and the St. Anne's Lock £778.

Although the revenue from the canals is very small, there has been a gradual increase, except during the last year as may be seen from the following figures.

Net revenue in 1847, £41,139, in 1848 £36,815, in 1849 £48,033; in 1850 55,110, in 1851 £63,939, and in 1852 £56,625. The net average revenue is £52,402.

The total number of vessels that passed through all the canals in 1852 was 20,404; the amount of tonnage 2,227,147. The vessels ranged from 50 to 854 tons.

#### Pittsburg and Erie Railroad.

The Board of directors of this road met in New Castle, on Monday last. They were in session two days deliberating upon the best plan for constructing the road. The following resolutions were handed to us for publication:

Resolved, That active measures be immediately taken to construct the main line from Erie to the Ohio river, and simultaneously therewith, such lateral roads or branches as after careful surveys, may be deemed advisable, advantageous and suitable to promote the convenience of the inhabitants of the respective counties and the interests of the company.

Resolved, That the proposition this day made by Jos. Chamberlain & Co., for the construction of the entire main line and lateral roads, and furnishing the same, be accepted.

From the above it will be seen that this important work will go on, and that the construction of the main line from the mouth of the Beaver to Erie and the branches have been allotted to Messrs. Chamberlain and company, who are well known as gentlemen competent to perform the undertaking.

The road has been located from New Castle to Beaver Point. From this place the road will pass down the east side of the river, until it reaches a point near Hardscrabble, when it crosses, and keeps down the west side until it reaches the Ohio river at the mouth of the Beaver. This, in our opinion is a very important point as it will here connect with the Wellsville road, and all the roads running south and west of the Ohio and Pennsylvania railroad. This company has also surveyed the route, and taken the ground from the mouth of the Beaver to Pittsburgh, which will lengthen the road and make it more profitable to the stockholders, by which means they may secure the entire trade and travel of the Wellsville road. Much difficulty has been thrown in the way to impede the construction of this road; but, the committee of investigation, in the legislature have reported that their charter is good, and the gauge law having been repealed, we can see no cause for any further delay. We are told that the work will be commenced on this road within sixty days.—*New Castle Journal.*

#### Terre Haute and Alton Railroad.

The *Tribune*, of Monday, contained a commendatory notice of an article upon the Terre Haute and Alton railroad; but the next day it backed square out, influenced by the following letter from the President of the road:

NEW YORK, May 9, 1853.

SIR: A portion of the Money article in your paper of to-day is devoted to the affairs of the Terre Haute and Alton railroad company. I regret that its statements are so erroneous as to compel me to appear personally before the public, and I appeal to your sense of justice to give the same degree of publicity to my reply as you have given to the statements to which I refer.

Your authority for the remarks is found in an article of *The American Railroad Journal*. That article must have been written in entire ignorance of the real facts of the case. I make no charges of intentional wrong against *The Journal*; its editor doubtless supposed he had good reasons for his course in respect to the Alton and Terre Haute railroad, but his statements of facts could not have been derived from any one at all acquainted with our affairs. We are prosecuting our work with diligence and economy. We are sustained by the legislature and the people upon all occasions when their support is necessary: and if a rapid prosecution of our work, and the construction of a first-class railroad, shall entitle us to their confidence, we shall continue to enjoy it.

In the course of the present year, we expect to have at least one hundred miles of track laid, all the iron for which is purchased and paid for, including all charges to the time of delivery upon the line of the road. It is now going forward. The track for most of the distance is graded and ready

for the immediate reception of the rails, a large quantity of which are now on the way there, having been shipped some two weeks since from this port by way of the canal. The contractors are Phelps, Mattoon & Barnes, of Springfield, Mass. These gentlemen have recently finished the Rome and Watertown railroad, are now constructing the Buffalo, Corning and New York railroad, and several others in the state of New York, and they are well known to possess the energy and pecuniary means necessary to carry them successfully thro' this undertaking, and they are urging the work forward with a view to its early completion. A large force is now at work upon the line, and the progress of the work is satisfactory to all our friends.

It is annoying in the face of all these facts to be compelled to notice such mis-statements as those of the Journal to which I refer. I am entirely at a loss to account for them. The statement in reference to our bonds spoken of as having been offered some months since and withdrawn, is entirely incorrect. They were neither offered nor withdrawn. They were prepared last Fall in the regular course of our business with a view to offering them whenever the proper time should come; and during the present Spring they have been all sold by the company by private negotiation, to Eastern parties who fully understood the condition and prospects of our road, and who, I believe, are abundantly able to hold them. If they choose to resell any portion of them they have the right to do so; and they may justly complain of such unfair assaults as I have referred to. You and the public may rest assured that no better security than is offered by these bonds will be furnished by any Western road. They are a first mortgage security, for less than \$6,000 per mile, upon a first-class road, having 10, 15 and 20 years to run, and convertible into stock at any time before their maturity; and I have no doubt they will be sought for as a most desirable investment. In reference to "State Policy," as it is called in Illinois, we believe we in Illinois understand it; nor shall we receive instruction on this subject from those who are endeavoring to build up rival roads, and are thus interested in breaking it down.

Yours, Respectfully, SIMEON RIDER.  
President of the Terre Haute and Alton Railroad Company.

We are always happy to give both sides of a controversy, especially when both equally support one position; and we ask whether any evidence furnished by the company itself, could have more fully convinced the public of the correctness of the views and statements in reference to this road contained in the article published in the *Journal* of last week, than the foregoing letter of the President.

Our article was *not* written "in entire ignorance of the facts of the case." If it were, it would have been very easy to have pointed out our errors, or to have controverted our statements; not one of which are, in fact, *denied*. We took the ground that the expenditure of one dollar is not sufficient security for a loan of fifteen, and we *know* in the present case that the whole expenditure upon the road, to a recent date, was only claimed to be in the neighborhood of 70,000, and we have good reason to believe that a considerable portion of this aggregate did not represent *work* actually done upon the road.

Neither are our statements in respect to the manner in which the stock subscriptions are made up, controverted; and we assert that where contractors take stock in *weak* Western projects, the presumption is, that such subscriptions are made under a belief that the amount can be cleared out of the profits of the contract. If so, such stock adds no strength to the concern.

When a company come before the market for money, it should show what its means are. This company makes no such exhibit, and in failure to do so, the legitimate presumption is that no *satisfactory* exhibit can be made.

When a company seek to borrow money to construct their road, the public must have the means of knowing what it will cost, which can only be supplied by the report of some competent and respectable engineer. The exhibit of this company contains no evidence that an engineer has ever been in the employ of the company. Suppose a road to be let at \$30,000, which will cost only \$15,000 per mile, and one half of this can be raised by the sale of bonds.—Is there necessarily any basis for the issue of such bonds? Ought not all such modes of doing business to be discouraged; and if persisted in, will they not lead to the most extravagant speculations and all their disastrous results?

The Terre Haute and Alton railroad will cost something like \$4,000,000. At least one-half of this sum will have to be raised on bond and mortgage of the road. Such being the fact, it is the most improvident act possible to divide the aggregate into two sums, with two distinct mortgages.—Were there a sufficient stock subscription on which to base a loan of \$2,000,000, or in other words the sum necessary to be borrowed to complete the road, the larger the loan, the security being sufficient, the better would it sell. But in most cases a *first* renders the bonds secured by a second mortgage comparatively worthless. Suppose in the present case it should be found impossible to borrow any more, how is the road to be completed? We cannot tell. But unless the road be completed is not the safety of the first bonds periled. We have uniformly urged upon companies, when coming into the market for money, the importance of adopting some well devised scheme which shall supply them with all the money they need, instead of resorting to temporary expedients, or to small loans, which create encumbrances upon their property, but which in fact are too inconsiderable to be of any real value. We now urge the same course upon this company.

Mr. Rider speaks as if the work of construction had been going on for some time past. Will he please inform us how many assessments upon the stock have been called for and paid?

We have previously discussed the "State Policy" of Illinois. It is one we *detest*, and when, as in the present case, a company attempts to maintain this doctrine to the manifest inconvenience and injury of the great body of railroads in this country, they must not expect any particular favors from us.

Mr. Rider also states that the bonds were *not* offered for sale last fall. We had good reason to suppose otherwise. The company published an exhibit, setting forth the proposed loan, which was generally circulated. It was certainly reported that they were sold for iron. We had good reason to suppose under the circumstances, that they were upon the market, but as they were not offered, we were mistaken in saying that our article had any influence in preventing their sale.

We see nothing to change in the *principles* we have laid down in reference to the sale of railroad bonds. We believe them to be correct. The main question is, whether the Terre Haute and Alton project is obnoxious to them. This must be determined by the *facts*. Let us have them. Let us

have a statement of the *exact* condition of the Co. in *minute detail*. Let us know how much the road is to cost; how much stock is subscribed; how made up; how much paid in, and how much probably collectable. Let us know also how much will have to be *borrowed* to complete the road. We shall take the greatest pleasure in giving these details to the public. If they justify the proposed loan we shall be very happy to recommend it. If the company be in fact intrinsically strong, our *opinion* cannot injure them, and we only injure ourselves by expressing an adverse one. We disclaim anything like hostility toward the project. The company have, to be sure, in a great measure forfeited our sympathies by a wanton attack upon the rights of others, and by their support of an exploded and most pernicious policy, of which they are the acknowledged champion. But the main thing is the *value* of the securities of the company. Let us have the "documents."

#### The Model Locomotive for Japan.

We learn from the Philadelphia Ledger that the order given in January last by the United States government to Messrs. Richard Norris and Son, for the building of a model locomotive, tender and passenger car, to be presented to the emperor of Japan, has been filled and in a few days will be forwarded to this city, preparatory to being shipped to Japan. The model will be accompanied by Mr. Charles Montgomery, a practical engineer, who has been delegated to explain to the Japanese the power of steam as applied to locomotives, and the great revolution brought about by means of this agency throughout this and other countries wherein it has been introduced.—The locomotive is complete in every particular, as also the tender and passenger car. The capacity of the locomotive is estimated at nine tons, the tender is 4 feet long, two feet two inches wide, and is placed upon double trucks. The passenger car is ten feet long two and a half feet wide, and two feet ten inches high. It is constructed of rose wood and finished in the most exquisite manner, with revolving seats covered with crimson. Every other feature about the car is in keeping with the best taste and judgment. A railway track will also be sent to Japan with the locomotive and its appendages.

#### Effect of Railroads.

We copy the following from the St. Louis News: Yesterday, three hundred coils of No. 1 bale rope were brought into this city by a Louisville dealer, at 6½ per lb, and shipped on board the steamer *Editor*.

The business of rope spinning in this State is increasing fifty per cent. every season, and perhaps forty thousand coils will be shipped from this city during the present year. Some estimate that 10,000 or 12,000 bales of hemp, or one-fifth of the entire crop, will be consumed in manufacturing bale rope and bagging.

A few have purchased hemp, provisions, corn, rope, and hides; and within the week a large amount of bulk meats and lard, and some limited lots of barrelled pork have been taken by one or two parties from Louisville. Two manufacturers from the same place have bought together between 400 and 500 bales of hemp, and from 300 to 500 coils bale rope. Yesterday 130 bales of hemp sold from Store to a Cincinnati manufacturer at \$95 per ton. A large quantity of corn has gone forward to Cincinnati and even to Pittsburg, during the month—perhaps as much as 20,000 sacks, or 50,000 bushels. Hides go forward in unlimited numbers, and the time is near at hand when a large proportion of all the produce intended for eastern markets will be forwarded in the same direction.

The cause of an increased demand for produce along the Ohio river cannot be attributed to short supplies alone. There is another, and perhaps a more permanent reason. It is the comparatively

cheap and easy communication now enjoyed with the Atlantic seaboard, by means of railroads. The demand for most of the staple products of the country has increased in a very great degree, and any deficiency on the Ohio must, of course, be supplied from other sections. Hence it is that many articles, heretofore abundant, have fallen behind the actual demand for export and home consumption. Tapping the Ohio river at Wheeling and again at Cincinnati with railroads leading direct to the principal markets of the Union, cannot fail to work great and permanent changes in the travel and transportation of Western people and Western products. The beginning is now, the consummation hereafter.

### American Railroad Journal.

Saturday, May 14, 1853.

#### Book and Job Printing.

The undersigned have added to the PRINTING ESTABLISHMENT of the "RAILROAD JOURNAL," an extensive OFFICE for BOOK AND JOB PRINTING, which they are now prepared to execute in the best manner, and with DISPATCH. They respectfully solicit from RAILROAD COMPANIES, orders for the PRINTING of Exhibits, Time-tables, Circulars, Tickets, &c., &c.

J. H. SCHULTZ & CO.

New York April 9, 1853.

#### To Railroad Companies and Contractors.

A SUPERINTENDENT, who has the very best testimonials from some of the most celebrated Engineers, having had charge of very large and difficult works, on which he gave the greatest satisfaction, wishes to make an engagement with some Company or responsible Contractor. He has the reputation of being a very skillful manager of large numbers of workmen, and, by reference to his former employers, it will be found that he will be a profitable man, although he expects a fair salary. A letter addressed to the Editor of this Journal will meet prompt attention.

#### Columbus Piqua and Indiana Railroad.

We publish this week an advertisement of sale of \$400,000 of the first mortgage bonds of this company.

This road extends from Columbus to Union, its point of junction with the Indianapolis and Bellefontaine road, a distance of 102 miles. The upper division of the road, extending from Columbus to Urbanna or Mad River road, is nearly completed, and will be opened for business in a few days.—The balance of the line is well advanced and will be completed during the present year.

When completed, a continuous line of railroad will be formed between Columbus and Terre Haute, a distance of 257 miles. From Terre Haute this line will be extended to St. Louis and Springfield, the capital of Illinois, within two years, by roads now in progress.

On the east the connections of the road will be equally favorable. From Columbus a road is already in operation to Cleveland. Roads are also in progress to Wheeling and Pittsburgh; the former looking to a connection with Baltimore, and the latter with Philadelphia. The Ohio Central road, aiming at Wheeling, is already completed to Zanesville, a distance of about sixty miles, and the balance is making rapid progress. At Wheeling

outlets will be opened both to Philadelphia and Baltimore.

By reference to a map of the U. S., it will be seen that this road forms an important link in one of the great lines of road reaching from the Atlantic to the Mississippi, and the only one presenting a uniform gauge for the entire distance. Upon the completion of the various roads that compose the grand line, the means for all which may be regarded as provided, a loaded car may go from Philadelphia to St. Louis over the same gauge, a fact which is regarded of the utmost importance in railway economy.

The portions of this line already completed, the Pennsylvania Central, the Ohio Central, the Indianapolis and Bellefontaine, and the Indianapolis and Terre Haute, are enjoying a very lucrative traffic, and the stock of all are at a premium. If the isolated links can earn a good income upon their cost, what may be expected when the whole chain is completed? The country traversed by the above road is not exceeded by any portion of the west in fertility and productiveness. It is covered with a dense population, and filled with numerous important and flourishing towns, the most considerable of which are upon the line of this road.—Upon this line all the conditions of a lucrative local traffic exists, in addition to the through traffic which one of the most direct and convenient routes from the Atlantic to the Mississippi, must command.

#### Lake Erie, Wabash and St. Louis Railroad Company.

The La Fayette Journal states that this company has been newly organized, and that an addition of one million three hundred thousand dollars has been made to the cash stock subscription. The new board is composed of seven directors, residents of New York, and six who are residents of Indiana. Mr. White remains as president, and Mr. Colton, of Lockport, as vice president of the company.

A contract has been entered into with Messrs. Boody, Ross & Co., of New York, to build, furnish and equip the road by the first of May, 1855. The Journal says, "it is to be a first class road, equal to the Rochester, Lockport and Niagara Falls railroad, and its length in Indiana, 165 miles.

The same parties have become corporators in the road from Toledo to Fort Wayne, which is to be a road of similar character with the Indiana line, and is to be built and equipped within the same periods and by the same contractors. The two companies will undoubtedly soon be consolidated."

The same paper informs us that "Mr. Durbin, the able chief engineer of the company, has resigned to take charge, we are informed, of the La Fayette and Indianapolis road as superintendent. Warren Colburn, Esq., of the Rochester, Lockport and Niagara road, will be chief engineer of the whole line, from Toledo to Danville."

"The new directory is composed of the following gentlemen: Albert S. White, LaFayette, Ind., James Spears, LaFayette, Ind.; Jos. Ristine, Covington, Ind.; John W. Wright, Logansport, Indiana; Hugh Hanna, Wabash, Ind.; Allen Hamilton, Fort Wayne, Ind.; A. D. Patchin, Buffalo, N. York; Elias B. Holmes, Brockport, New York; Azariah Boody, Rochester, N. Y.; Joel Rathbone, Albany, N. Y.; Joseph B. Varnum, New York city; Ed.

Whitehouse, N. Y. city; and John F. A. Sanford, N. Y. city."

#### Pacific Railroad, South Pass.

The following letter, published in the St. Louis Intelligencer, will, considering the source from which it comes, be read with interest at this time, when the question of the most eligible Railroad route to the Pacific is occupying so large a share of the public attention.

Santa Fe, March 27, 1853.

Sir, I find the following sentence in a letter addressed by you to the Santa Fe Gazette:

I see a writer in the New York Tribune, who professes to have visited Fort Laramie in 1849, and then and there saw Mr. Kit Carson, quoted that gentleman as in favor of the South Pass. I have ventured to doubt the statement that Mr. Carson prefers the route through Utah, and have claimed him as a friend to the New Mexican route. I wish he would write to me as soon as may be, and give me his opinion, with all the testimony which his valuable experience and sagacity on such subjects can supply.

You are perfectly right in claiming me as a friend to the route through New Mexico. I consider it as far, far preferable to the route through Utah Territory. I know but one route across the continent which can be traveled both winter and summer, and over a remarkably level country, and that one must cross the Rio Grande del Norte within 50 or 60 miles of Santa Fe, and from thence as direct to the California Mountains as the nature of the country will allow. The pass known as "Walker's Pass" through the Mountains, is a good one, and has no very abrupt ascents or descents. There is another pass higher up, which is nearly if not quite as good as "Walker's." That comes in some where about one of the "Four Creeks," and Dr. Nagle, of Santa Fe, has mentioned to me the fact that a reliable and intelligent man, an old Mountaineer, and whose statements I know are to be depended upon, having passed from the Vegas of Santa Clara, and after making his course due west, reached the Tulare Valley, passing over a country which, to use his own words, you could drive a ten mile team through any where.

There is no manner of doubt that the trail from Albuquerque by Zuni, along the head waters of the streams that run into the Gila, and then crossing the big river about the "Mohave" and so on is the easiest road that can be found. The only objection that I know of is that a greater part of the country along there is very barren, in fact so bad that the wolves can't make a living, and then it comes into the Tulare valley at its very southern extremity, and you have to run up 300 or 400 miles to strike the bay of San Francisco—so that if you could make a little more north it would be better. Mr. Fremont had always expressed a wish to me to examine the country along the southern limit of the basin, and if his explorations had not been stopped, that would have been his next enterprise.

On the other hand, I do consider the road by the "South Pass" as almost impracticable. I have no faith in it. The snows lie early and late in both the "Rocky" and "Snowy" mountain countries. It is easy enough the ascent of the Snowy mountains going up from the eastern side, but on the west it falls right off, and it is like going up a ladder to get out of the California valleys to the top of the mountains anywhere that I know of so far north. As to the snows, you folks, that live in the States know nothing about them. Why, sir, it snows harder and longer, and faster and more of it high up in these California mountains, than perhaps in any other place in God's world. I am not alone in my opinions on the subject about which you have written to me. Any old mountaineer that knows anything about it will say that the southern route through New Mexico is the best.

I am, Sir, yours very truly,

C. CARSON.

To WM. S. ALLEN, Esq., St. Louis.

**Indiana Junction R. R.**

This Company has been organised by the choice of John Woods of Hamilton, John D. Jones of Cincinnati, Samuel W. Parker and Wm. M. Smith of Connersville, J. M. Redenous of College Corner, George Hibben of Rushville, and James Blake of Indianapolis, as Directors. Mr. Woods has been chosen President.

Work has already commenced between Connersville and Hamilton, and the contract for the whole line will soon be made.

The stockholders in the Cincinnati, Hamilton and Dayton road have subscribed \$200,000 for the Junction road, and take a deep interest in its construction.

**Welles & Serrell's Compound Railway Bar**

We take occasion to call the attention of those interested, to the advertisement and representation of the Compound Railway bar, invented by Messrs Welles & Serrell, which may be found in another column.

The Bar appears to be new in the general arrangement of the parts; it consists of an interior and exterior rail, so arranged that the joints are broken, that is, that the parts lap over one another.—No rivets or bolts are used, and an ordinary workman can lay or repair it. The rail may be used with or without chairs.

Another advantage which is claimed for the rail is, that where the exterior is worn out it can be renewed while at least two-fifths of the entire bar, which is not subject to wear, is saved.

The proprietors, some time ago, made application for their patent, which is likely to be granted.

They are now ready to enter into arrangements with parties for making and using the rail.

**Chicago and Mississippi Railroad.**

In the Vermilion timber, in the region of Pontiac, Livingston county, there are at present about three hundred men at work getting out ties for the Chicago and Mississippi railroad, from Bloomington northward. The road is nearly all graded and ready for the rails to Blooming'n, and from Springfield north the rails are being laid at the rate of half a mile a day. Between Bloomington and Joliet there are about twenty squads of men at work, so that the whole road promises to be graded by fall.

Pontiac, the country seat of Livingston county, through the centre of which the road passes, is at present about the liveliest place this side of California. Some five hundred laborers make it their head quarters, and, with the numerous other strangers there, looking for locations, &c., were they all piled in three deep, there would not be room enough in the village to sleep all. Many, therefore, abide in tents. The hotel men, of course, are coining money, grocery keepers ditto, and storekeepers stand aghast at the crowds of customers, whose various wants their shelves can make no pretence to supply.

Until within a year or two, half the land in Livingston county has belonged to the general Government. Within a year there has been quite a rush that way by the land speculators, and a handsome operation they have all made of it. The Illinois Central railroad company got in a little ahead of the crowd, and secured many beautiful tracts that have more than doubled in value in a year, and promise to keep on doing so for some time to come.

We have always regarded Livingston as one of the finest counties in the State, her only drawback being the want of an outlet. The Illinois Central and the Chicago and Mississippi railroads will remove this, and then the county must go ahead at a railroad speed, and Pontiac, a village scarce known on the map of the State, will astonish our

lawmakers in a few years by applying for a charter. There is no better opening in the country for a man with a small capital, than just that same village of Pontiac.—*Ottawa Free Trader.*

**Westernport and Alexandria R. R.**

The object of this road is to connect Westernport with the Manassa Gap road at or near Strasburgh on the Shenandoah river, thus affording, it is said, the most certain and direct route for the coal region to tide water. A party of Engineers are now engaged in a survey of the route, under the direction of the Manassa Gap railroad company, and it will be brought before the public at no distant day upon real and not conjectural estimates. The distance from Alexandria to Westernport by this route is believed to be not more than 140 miles, with grades at least equal to those of any other. It is also contemplated to straighten the curves of the present Manassa Gap road, as can readily be done, so soon as the business thereof will justify.

**Pacific Railroad.**

We learn from the engineer's office of the Pacific railroad, that the track has been laid to a point near Kirkwood, and that it will be entirely completed during the present week to enable cars to commence running by the first of May. The distance is thirteen miles from the termination of the road in Fourteenth street, and already the depot has been completed in anticipation of the event of the cars reaching that point. By the 1st of July we hope to be able to announce the completion of the road to the country line.—*St. Louis Intel.*

**Chicago and Cincinnati R.R.**

We are gratified in being able to state that the stocks of the Cincinnati, Logansport and Chicago, and the Logansport and Chicago railroads have been consolidated, and that two are to constitute, hereafter, one Company, as far as their earnings and profits are concerned. As they form complements of a whole, their consolidation cannot fail to be mutually highly advantageous.

Upon the first division of this line, from Richmond to Logansport, a distance of 107 miles, the work is now well advanced. The Company have just commenced laying the iron from Richmond.

They have on hand sufficient for about forty-two miles. The balance is to be purchased and forwarded immediately. The entire road bed from Richmond to Logansport will be in readiness for the rails in a few months, so that the iron can be laid as soon as it can be received from England.—This portion of the road is in the hands of energetic and practical men, and as the company are in possession of sufficient means, the work will be carried forward with all the dispatch consistent with an economical expenditure of money.

The division from Logansport to Chicago is about being placed under contract. The whole line has been thoroughly explored, and an excellent route obtained. The distance is but little, rising 100 miles. The greater part of the way is a wide plain, to construct a road over which requires only an embankment sufficiently high for good drainage. There cannot be found in the United States probably a more favorable route for a road. It is the intention of the parties having this road in charge to press its construction with despatch for the purpose of opening it with the least possible delay. We learn that stock subscriptions are now being made to this project, which will provide sufficient means for this purpose.

The line connecting the cities of Chicago and

Cincinnati is one of the best routes for a railroad in the U. States. Independent of its through traffic, which must be very large and constantly increasing, the route of this road is one of the best in the country for a lucrative local traffic. Both united cannot fail to make the above one of the most productive works in the west.

**Stock and Money Market.**

There has been but little change in the market for the past week. Money, if there has been any change, is becoming more plentiful. The stock market, as a general thing, is dull. The prices of sound stocks and securities however, are well maintained, and a good demand exists for best class railroad bonds, of which the supply is small.

The earnings of our roads continue to show a large increase over the corresponding period for the past year, and the whole season promises to be one of extraordinary productiveness.

The receipts of the Norwich and Worcester road for April prove to be larger than was anticipated. The figures are:

April, 1853.....	\$25,365 99
April, 1852.....	21,238 07

Total.....\$4,132 92

The receipts of the New York and New Haven road for April were:

Passengers.....	\$60,309 78
Freights.....	10,500 00

Total.....\$70,809 78

Paid Harlem railroad.....	4,327 18
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Net receipts.....\$66,482 65

April 1852.....	56,317 89
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Increase.....\$10,164 76

The receipts of the Michigan Central road were about \$100,000. Of the Michigan Southern there was an advance of the estimate, being:

Passengers and Mail.....	\$77,977 65
Freights, etc.....	34,877 69

Total.....\$112,855 34

April 1852.....	48,472 00
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Increase.....\$46,388 35

The receipts for the first four months of the year have been:

January.....\$50,022   March.....\$86,866
February.....58,621   April.....112,855

Aggregate.....\$408,354

The receipts of the Cleveland and Pittsburgh railroad for April, 1853, were:

Passengers.....	\$19,792 84
Freight.....	19,587 82

Total.....\$39,380 16

April, 1852.....	28,804 01
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Increase.....\$15,576 15

The receipts of the Little Miami railway company for the month of April are \$71,206.78. This is an increase of 14,291.18 over that of the same month last year.

The following are the receipts of the Louisville and Frankfort railroad for the month of April:

Passengers.....	\$8,823 63
Freight.....	6,956 86

Mail service.....464 27

Total.....\$16,248 76

Receipts for April, 1852.....	14,718 68
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Gain for April 1853.....\$1,530 18

*Journal of Railroad Law.*

## HOW FAR MAY DISTINCT CORPORATIONS COALESCE?

This question and the two annexed decisions which closely relate to it, will be found, we think, at the present time especially interesting.

The doctrines of a District court of Ohio, and that of Judge McLean, of the United States Circuit court, in reference to this matter, are substantially in harmony. The true rule to be elicited from these cases is the following: "Corporations may combine in order to effect their legitimate objects, and not otherwise."

In the case first to be cited, the defendants were enjoined against uniting with another company for the mere purpose of evading a previous injunction and changing their route as legally established.

In the next case the company, who by their charter have power only to extend their road from Sandusky city to Fremont, and thence to Toledo, were forbidden to abandon and diverge from this route, and to construct a bridge far below Fremont across Sandusky bay, by combining with another company or otherwise.

While on the other hand, the Port Clinton company, incorporated expressly to construct a road from Sandusky city, by Port Clinton, over Sandusky bay, at Toledo, and proposing to build a bridge over the said bay, with a draw of 144 feet, to be opened and shut by a central pivot, are held in view of the evidence to be at liberty to proceed in their undertaking.

The case first above mentioned is that of the *Mad River and Lake Erie Railroad Company* in which the decision was given by Chief Justice Bartley, with the assent of his shree associates.

The complainants in this case claimed to have made contracts with the Mad River and Lake Erie railroad company, which that company was about to violate. A contract was made by deft's with complainants to locate said road through the town of Bellevue, the complainants having a right to side-tracks, and two ware houses connected with the track for continued use. Complainants are still in possession of the property, and the Co. was about to change its location. In answer to the original bill, respondent admitted the facts, and set up that the new route offered greater facilities and advantages than the line through Bellevue. A provisional injunction was allowed. After the allowance of the injunction the Mad River and Lake Erie railroad company professed to abandon its plan of changing the route, and the officers of said road commenced an organization under the Sandusky city and Indiana charter. Respondent claimed that there was an organization under this charter. A supplemental bill was filed by complainants setting up that said organization was a mere pretence. Respondents answered that they were not interested in building this road; but claimed the right of connection therewith.

The court decided, in substance as follows: The organization of a company must be bona fide, in order to render the proceedings valid. Is there any such company as the Sandusky City and Indiana? The alleged company was organized shortly after the allowance of the provisional injunction. The amount of its bonds was \$350,000, but only \$51,000 stock subscribed, and apparently none of this paid up. Stockholders gave their notes without interest, and do not appear to have paid them. The treasurer of the Mad River company held the

notes and bonds, and advanced the means necessary for the company. The new company lease their road for 99 years to the Mad River company with the privilege of renewal, and the Mad River company are to pay all expenses.

Here is evidently a device to evade an injunction, by colluding with the nominal company.

The complainants are entitled to a decree:

1st. That said Mad River and Lake Erie railroad Co. shall not change the location of the main route of their road from Tiffin to Bellevue.

2nd. That said Mad River and Lake Erie railroad company shall not use the railroad of said Sandusky city and Indiana railroad company in any way either by connection or otherwise as a railroad, except for the purpose of gravelling the road of the said Lake Erie and Mad River railroad company.

3d. That said Lake Erie and Mad River railroad company shall not use any of their means towards completing, or running or otherwise using the road of the Sandusky city and Indiana railroad company, or apply their means towards paying their bonds in the lease in the pleadings mentioned, which lease is hereby declared void, or any other liabilities of the Sandusky and Indiana railroad company.

4th. That the injunction hereby granted, shall not take effect until the complainants give bonds and security in the sum of \$10,000, to be approved by the clerk of this court, and that this cause be reserved on the motion of the defendants for final decision to the next Supreme Court of Ohio.

The above mentioned decision of Judge McLean, was rendered in the case of *Works, vs. the Junction Railroad company and Port Clinton railroad company*.

It was on application for an injunction to restrain defendants from constructing a bridge across Sandusky bay, for the purpose of a projected railroad.

The complainant, a citizen of N. Y., states that he owns a large amount of real estate at and near Fremont, on the Sandusky River, in the county of Sandusky, State of Ohio, which comprises a Tannery, half of a Flouring Mill, a Saw Mill, a store and Warehouse, a Wharf and Water Lot; that the Sandusky River, from Fremont, is navigable for steamboats, schooners, and other vessels, and that a commerce is carried on from Fremont down the river and bay to different ports on the Lakes; that he has Plank road Stock, which pays a profit by the transportation of produce to and from Fremont; that shipments are made of Flour and Lumber from his Mills, and Leather from his Tannery, &c.

He represents that the defendants are about constructing a railroad from Sandusky city to Toledo, crossing the Sandusky Bay by a Bridge on a line to Port Clinton, in Ottawa county; that the Bridge, if made, will materially obstruct the commerce of the Bay to his individual and irreparable injury; and he prays for an injunction to restrain the defendants from the construction of their proposed Bridge.

The "Junction Railroad Company" answers, that it is engaged in building a railroad between Cleveland and the Maumee River, connecting with Toledo, and extending from that city to the West line of the State, under various Charters, which authorize them to prosecute the work,

The Port Clinton Railroad Company demurs generally to the complainant's bill, and answers denying the fraud and collusion with the Junction Road, as charged in the bill. It denies that it has any connection with the Junction Road, either to aid or receive aid from it, and there seems to have been produced no evidence of such connection.

The navigableness of Sandusky Bay above the proposed Bridge, and also of the Sandusky River to Fremont, is admitted by the parties and the pleadings. The General Government has recognized this fact by making Fremont a port of entry, and the State of Ohio, by appropriating funds in removing certain obstructions in the Sandusky river.

The following are the prominent points decided:

1st. The Junction Company cannot justify their departure from the route to Fremont on the ground that they are authorized to make branches; for they evidently design to cross the Bay, and extend to the Maumee. And they cannot, by their Charter, extend branches from one county to another. The Company do not design, hereafter, to make a road from Fremont to the Maumee,—such a road would not benefit them. The Port Clinton road cannot, in any way, be brought within the charter of the Junction Railroad, and said charter, by no means authorizes the Junction Company to construct the Bridge in question. The Port Clinton Railroad Company was duly organized under the Act of May, 1852, in October, 1852,—beginning their route at Sandusky city, and extending it by Port Clinton over Sandusky Bay to Toledo.—Their plan of a bridge for crossing the Bay, was submitted to the Commissioner and approved by him. Although the Board of Public Works subsequently reversed this decision, they, in so doing, exercised a power not belonging to them, and that reversal was void.

The Junction Railroad Company was not authorized to construct a railroad bridge over the Sandusky Bay, for such a right can only be conferred by the sovereign power, by a special or a general act, like that under which the Port Clinton Company was organized.

The approval of the commissioner cannot be impugned on the ground that Sandusky Bay is not "a public work,"—and as such subject to his jurisdiction. "The acting Commissioners" it is said, "must have charge of the public works where such crossing is proposed, and where there are no public works his approval cannot be given." Having charge of the public works where such crossing is proposed, only means that such place shall be within the jurisdiction of the Commissioner.

A corporation formed under this general law is vested with all the ordinary powers to accomplish the purpose intended. It may appropriate private property, and do all other things necessary in the construction of a Railroad. The general act is as specific in its details of the right and duties of the Company, as can be found in special acts of incorporation. The Legislature of Ohio has been cautious, as all other Legislatures have been, in special acts for Bridges and railroads, to guard against obstructions to navigable waters. And the twentieth section of the General Law was intended to preserve this great public right. The plan of a Bridge over any navigable water must be approved by the Board of Public Works, or by the acting Commissioner.

On the whole, there is no doubt that the Port Clinton Company may construct a bridge over the Sandusky Bay, provided it shall not obstruct commerce.

4th. The public right consists in an unobstructed use of every navigable water connecting two or more States. The local right is in crossing such waters. The public right is paramount to all States authority; and its operation in this case must be determined by the evidence submitted.

The draw proposed is 144 feet, to be opened and closed by a central pivot.

The testimony upon the question of obstruction to navigation being very nearly balanced, and consequently neutralized, the Court concluded that the present was not a case to grant an injunction against the Port Clinton Company.

### SALE OF BONDS. Columbus, Piqua & Indiana Railroad Bonds.

I SHALL sell at auction on Wednesday the 8th of June, at 12½ o'clock, at the Merchants' Exchange, \$300,000 7 per cent. Convertible Bonds of the COLUMBUS, PIQUA AND INDIANA RAILROAD of Ohio, being the balance of \$600,000, secured by a First Mortgage on the property and franchises of the company, and issued for the purchase of the iron for the road. These Bonds are in sums of \$1,000 each; they mature in 1862, and bear coupons for semi-annual interest, payable at the Ohio Life and Trust company in this city. This railroad extends from Columbus, the capital of Ohio, 102 miles westward to Union, on the Indiana State Line, where it connects with the Bellefontaine and Indianapolis railroad, placing it in full communication with all the railroads branching from Indianapolis to the Ohio and Mississippi rivers. At Columbus it joins with the Ohio Central and the Steubenville and Indiana railroads, which, through Wheeling and Pittsburgh, connect with the main railways to Baltimore and Philadelphia, making altogether the shortest line of roads that can be constructed from those seaboard points, through Ohio, to the Great West.

The Counties bordering on the Columbus, Piqua and Indiana railroad, contain 175,000 inhabitants, with taxable property amounting to over \$40,000,000. They are rich, even for Ohio, in railroad traffic.

The cash subscriptions to this road secured, and nearly all paid up amount to..... \$967,500  
The First Mortgage Bonds..... 600,000  
The Second Mortgage Bonds have been nearly all sold at and over 90, am't to..... 400,000  
\$1,967,500

which will cover the whole cost of the road, being under \$19,000 per mile.

The work is in rapid progress of completion—a section of twenty miles of the track is laid down—26 miles more are being laid down, and will be running early in June. The rest of the road is nearly ready for the superstructure, and the whole line will be completed during this year. The whole iron for the track is purchased, and at prices far below present rates. A glance at the map will show at once the important central position occupied by this road. No other road in Ohio will command so large a portion of the through traffic from the whole seaboard to the west. New York, Philadelphia and Baltimore will all find this a valuable link in the respective avenues which lead from the Mississippi to these cities. The prospects of this road are such as to make the convertibility of the bonds of great value to the purchaser.

SIMEON DRAPER.

New York, May, 14, 1852.

### CAR, LOCOMOTIVE, AND TENDER SPRING MANUFACTORY.

PHILADELPHIA, March 1, 1852.

We beg leave to present the following Certificates to the consideration of Railroad Companies and Car Builders, for the quality of CAR, LOCOMOTIVE, AND TENDER SPRINGS manufactured by us.

At the same time we would inform Railroad Companies and Car Builders that we have extended our works, and will be happy to execute any orders for Steel Springs for Cars, Locomotives, or Tenders, of any design or pattern which they may see proper to intrust to us, at the lowest prices, and on terms which will prove satisfactory.

From our long experience as Spring manufacturers, we are enabled to supply Railroad Companies with Spring Steel, of superior quality, converted from Swedish Steel Iron.

The iron being imported direct from Stockholm by ourselves, and Converted and Rolled under our supervision.

Yours respectfully,

JAMES JEFFRIES & SON,  
REAR OF GIRARD HOUSE.

{ Office, Petersburg R. R. Co.  
Petersburg, Jan. 8, 1852.

The house of James Jeffries & Son, of Philadelphia, has made us a good many Car and Engine Springs, and I take great pleasure in stating that they have always turned out well, and I believe their work can not be surpassed by any in the country.

H. D. BIRD,

President.

{ Office, Sup't T. & M. Power, So. Ca. R. R. Co.  
Charleston, Jan. 21, 1852.

This is to certify, that the South Carolina Rail Road Company have for a number of years been using the Steel Springs manufactured by Messrs. J. Jeffries & Son, of Philadelphia, for their Locomotive Engines, and for both Passenger and Freight Cars, and take pleasure in stating that they have given entire satisfaction, and recommend them to the patronage of all Rail Road Companies requiring such articles.

J. D. PETCH,

Sup't Trans. & Motte Power So. Ca. R. R. Co.

Philadelphia, Feb. 27, 1852.

This is to certify, that I have used Springs made by James Jeffries & Son for the period of five years, and consider them equal, if not superior to any others that I have had in use.

JOSEPH S. LEWIS,

Pennsylvania & Ohio Lines.

{ Georgia Rail Road,

Augusta, Ga., Jan. 1, 1852.

To whom it may concern.—We have used Springs manufactured by Messrs. James Jeffries and Son, for the Locomotives and Cars of our road for the last ten years, and have no hesitation in recommending them as having given general satisfaction.

F. C. ARMS,

General Superintendent.

{ Macon & Western Rail Road,

Macon, Ga., Jan. 25, 1852.

Messrs. J. JEFFRIES & SON,  
Gentlemen: This Company has for several years purchased and used, under Cars and Engines, Steel Springs manufactured by you. We have also purchased from other manufacturers and made Springs ourselves.

Yours have given entire satisfaction, and have proved themselves equal, if not superior to any we have used. Their excellent qualities should commend them to all who have need of an article so difficult to obtain in perfection.

Yours, very respectfully, EMERSON FOOTE,  
Superintendent.

Macon, Ga., January 24, 1852.

Messrs. J. JEFFRIES & SON,  
Gentlemen: In reply to your inquiries in reference to Steel Springs, I take pleasure in saying, that I have been in the way of observing Springs in use on Cars and Locomotives, on various Rail Roads, for seventeen years past, more particularly on the Central Rail Road of Georgia for eight years past, and during said seventeen years have been practically acquainted with your make of Springs, and I have no hesitation in saying, that your Springs with open work are the best Steel Springs I have ever used or seen in use.

Yours, respectively, GEO. W. ADAMS,  
Superintendent S. W. R. R. of Georgia.

{ Transp. Office, W. & A. R. R.

Atlantic, Jan. 31, 1852.

Messrs. J. JEFFRIES & SON,  
Gentlemen: This road has used the Springs made by your firm since its first opening, under both Engine and Cars, and they have given entire satisfaction to all.

Very respectfully, WM. D. FULTON,  
Superintendent.

{ Montgomery & West Point R. R. Co.

Montgomery, Ala., Feb. 13, 1852.

This may certify, that this Company have been for years using, both under their Engines and Cars, Springs from the manufactory of James Jeffries & Son, of Philadelphia, and are so well satisfied of their superiority that we can confidently recommend them to all companies in need of Springs.

SAMUEL G. JONES,

Montgomery & West Point R. R. Co.

**To Railroad Contractors.**  
NEW ORLEANS, JACKSON & GREAT NORTHERN RAILROAD.

SEALED PROPOSALS will be received at the Engineer's Office, (or through Post Office) in Aberdeen, Miss., until the 1st day of July next, for the Graduation, Masonry and Bridging of fifty miles of that portion of the Second Division of the New Orleans, Jackson and Great Northern Railroad extending from the Tombigbee River ( $\frac{1}{2}$  miles north of Aberdeen) to the Valley of the Besa Chitto Creek (a tributary of the Rockanockamy, in Choctaw County, Miss.).

Plans and Profiles will be ready for inspection on and after the twentieth day of June; also after said time the character and magnitude of the work can be fully comprehended by passing over the line and reading the depth of cuts and height of embankments from the centre stakes.

Contractors will be furnished with specifications and blank proposals on application to the office.

Testimonials as to character and ability as Railroad Contractors, must accompany the proposals from all persons or parties not personally known to the officers of the company.

The line will be divided into sections of about one mile each, and bids will be received for one, or more, or the whole.

There is about 13 miles of very heavy earth work in crossing the ridges between Trim Cane Creek, and the head waters of the Besa Chitto; which being all in an elevated and healthy locality presents attractions for the grading Contractor. The balance of the distance will be average work. No rock of any importance is encountered in the whole distance.

The Masonry consists chiefly of eleven brick Culverts, with spans varying from 15 to 35 feet, and Brick Abutments and Piers for the Tombigbee River Bridge.

For further particulars apply to Geo. H. Hazlehurst Esq., Principal Assistant Engineer, personally or by letter,—directed to Snowsville Post Office, Choctaw County, Miss., or to the undersigned.

By order of the Board of Directors.

JAS. H. GRANT, Chief Engineer.  
ENGINEER DEPARTMENT, Aberdeen, Mass.

**Notice to Contractors.**

PHILADELPHIA, EASTON AND WATER GAP RAILROAD.—Proposals will be received until noon, MAY 25th, for the Graduation and Masonry of said Railroad, from a point on the Wissahiccon, about fourteen miles from Philadelphia, to Hellertown, a distance of thirty-six miles. Seventeen miles more will be ready for contract in a short time.

The part now offered, includes a Tunnel 1800 ft. long, and a large amount of Earth and Rock Work and Masonry. The route occupies a very fertile and healthy country, accessible at all points. The line will be ready for examination, May 10th, and the Profiles, and Specifications, and forms of Proposals, may be seen at the Engineer's Office, No. 88 South FOURTH Street, Philadelphia, after May 15th.

EDWARD MILLER,  
Chief Engineer.

**Railroad Iron.**

3000 TONS in port and to arrive during April and May—weighing 58 and 60 lbs. per linear yard, of excellent patterns and of Guest and Crawshay's best make, for sale on favorable terms by DAVIS, BROOKS & CO.  
28 Beaver Street, New York.

May 10th.

**Wrought Iron Wheels !**

THE SUBSCRIBER, Sole Agent in the United States for the Union Foundry in England, is prepared to take orders for, and to furnish promptly Wrought Iron Wheels at a low cost, of a superior quality, for Railway Cars. These wheels are extensively used in England, and are already in use on several important railroads in America. Samples of them can be seen at 24 Broadway, New York, and 9 Liberty Square, Boston.

At 19

WM. BAILEY LANG.

**\$3,000,000 LOAN ON THE MORTGAGE BONDS OF THE ILLINOIS CENTRAL RAILROAD COMPANY.**

This Company will receive proposals from the 10th to the 15th day of June next, for Three Millions of Dollars of its Construction Bonds, to be issued in sums of One Thousand and Five Hundred Dollars each, payable at the office of the Company in the City of New York, on the 1st day of April, 1875, with coupons attached for the payment of interest, at the same place, semi-annually, on the 1st of April and 1st of October, in each year, at the rate of 7 per cent. per annum.

These Bonds are secured by a first and only mortgage to Trustees of the whole road and branches, 704 miles in length, and of two millions of acres of land in the vicinity of the road, granted by Congress to aid in its construction.

The whole road is under contract, and a large force is now employed in its construction. It is expected that 350 to 400 miles will be completed by the 1st of January next, and the remainder of the entire line during the year 1854. About 72,000 tons of rails will be required, of which 67,000 tons were contracted for at the low rates ruling one year since, and is now constantly arriving at New York and New Orleans.

The whole amount of Bonds which can be issued under the mortgage is seventeen millions of dollars, of which have been already negotiated—London loan, 6 per cent Bonds ..... \$5,000,000 In United States, and on iron and other contracts, 7 per cent Bonds ..... 5,785,000

\$10,785,000

none of which have been disposed of at less than par.

The Company will give to each subscriber to this loan, whose bid shall be accepted, the right to subscribe for three shares of the ultimate capital stock of the Company (170,000 shares of \$100 each) for each Bond of \$1,000 subscribed and paid for by him, and a like proportion for a larger or smaller amount, and a proper Provisional certificate will be given as evidence of such right to subscribe when the stock shall be issued, upon payment of such instalment as may be required by the Directors, not exceeding the instalments then called in from other stockholders, which probably will not exceed \$5 per share.

The Company reserve the right to redeem any of the Bonds at any time before maturity, on payment of the amount thereof, with 20 per cent premium and any accrued interest.

No proposal will be received at any rates less than par, and the company reserves the right to accept proposals for all or any portion of the amount.

Ten per cent of the amount allotted to each subscriber will be required on notice of the acceptance of his proposals, and the balance as called for by the directors, not exceeding ten per cent monthly. Any subscriber, may, however, at his option pay up in full, and receive his bonds at any time. If any subscriber whose bid is accepted, shall prefer in lieu of the 7 per cent bonds hereby offered, to receive six per cent Bonds of the same character in every respect as those issued for the London Loan of \$5,000,000 of which interest and principal will be payable in London at the rate of four shillings and two pence sterling to the dollar, such bonds will be issued, but in such case the subscriber will be required to pay the instalments in London at the same rate, to wit: £208.6s 8d for each bond of \$1000. The stock appropriated to such subscription will be also registered in London upon the same terms and conditions as that now registered there, if preferred, instalments and dividends thereon being payable there at the same rate of exchange.

Interest in all cases will be adjusted on payment of the final instalment.

Proposals will be received by W. P. BURRALL, Treasurer, at the office of the Company, No. 50 Wall street, New York, enclosed, sealed and endorsed, "Proposals for Loan of \$3,000,000 of Illinois Central Railroad Company."

Reports and documents showing the financial condition of the company, the progress of the work, and all necessary information relative to its affairs and prospects, may be obtained on application to the treasurer, personally or by letter.

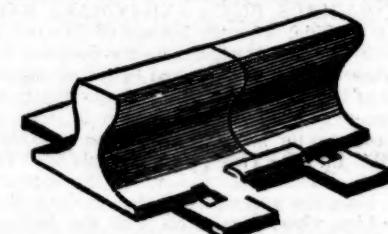
By order of the Board of Directors.  
ROBERT SCHUYLER Pres't.  
DAVID A. NEAL, Vice Pres't.  
W. P. BURRALL, Treasurer  
GEORGE GRISWOLD,  
MORRIS KETCHUM,  
JONATHAN STURGES.  
Executive Committee.  
NEW YORK, April 14, 1853.

**Alden J. Hale,**  
COUNSELLOR AT LAW, NOTARY PUBLIC,  
COMMISSIONER FOR THE DIFFERENT STATES,  
TRINITY BUILDING,  
No. 111 BROADWAY, NEW YORK.

A. J. H. will attend to taking Acknowledgments, Depositions, Affidavits, etc., for the States of Maine, Vermont, New Hampshire, Massachusetts, Rhode Island, Connecticut, Pennsylvania, Ohio, Indiana, Wisconsin, Iowa, Virginia, Tennessee, Alabama, South Carolina, Florida, Texas, Mississippi, Missouri, Kentucky and California; Loaning Money on Bond and Mortgage, Negotiating Sales of Real Estate in New York and other States; Examining Titles and Drawing Deeds, Powers of Attorney, and other instruments in writing.

Office Hours, from 9 A. M. to 5 P. M.

**Cincinnati Railroad Chair Manufactory.**



THE Subscribers are prepared to make to order, on short notice, Wrought Iron Railroad Chairs, in any quantity that may be desired, which they warrant in every particular.

W. H. CLARK & CO.,  
Cincinnati, Ohio.

Office 128 Vine street, (opposite Burnet House.)

**N. York and N. Haven R. R.**  
NOTICE OF SUMMER ARRANGEMENTS,

<b>Commencing Monday, May 9, 1853.</b>	
7 A. M.—Accommodation to	5.30 A. M.—Special, from Port New Haven.
8 A. M.—Express for Boston, stopping at Stamford and Bridgeport	6.15 A. M.—Accommodation fm New Haven.
9.10 A. M.—Special for Port Chester.	8.15 A. M.—Accommodation fm New Haven.
11.30 A. M.—Accommodation for New Haven.	9.35 A. M.—Express from New Haven, Stopping at Bridgeport, Norwalk and Stamford.
3:00 P. M.—Express for New Haven, stopping at Stamford, Norwalk, and Bridgeport.	1:07 P. M.—Boston Express, stopping at Bridgeport, Norwalk and Stamford.
4:00 P. M.—Accommodation for New Haven.	4:00 P. M.—Special, from Port Chester.
5:00 P. M.—Express for Boston, stopping at N. Haven.	4:00 P. M.—Accommodation fm New Haven.
5:35 P. M.—Commutation for N. Haven.	9:30 P. M.—Boston Express, stopping at Bridgeport, Norwalk and Stamford.
6:30 P. M.—Special for Port Chester.	

GEORGE W. WHISTLER, Jr., Sup't.

New Haven, May, 1853.

**Notice.**

LOST or stolen from the owners in London a package containing \$25,000, of 7 per cent convertible Bonds of the New York and Erie R.R. Co., redeemable in 1862.

Nos. 186, 916, 1,269, 1,375, 1,628, 1,634, 1,635, 1,608, 1,727, 1,729, 1,436, 1,347, 2,054, 2,055, 2,056, 2,505, 2,506, 2,507, 2,590, 2,894, 2,695, 2,876, 3,294, 3,295 and 3,460. \$1,000 each.

All persons are hereby cautioned against negotiating said Bonds, until further notice.

2t. p. CAMMANN & CO., 56 Wall street.

### Brass Tubes for Locomotive & Marine Boilers.

THE undersigned, having been appointed agent for the highly respectable manufacturers, Messrs. Allen, Everett & Son, of Birmingham, is prepared to take orders at fixed prices, for Brass Tubes of all diameters for Marine and Locomotive Engines. These Tubes are found to answer well, and are now in most general use in England, they last much longer than iron, and when worn out, realize about half the amount for old metal. For further particulars and inspection of patterns, please apply to

JOHN H. HICKS,  
90 Beaver St.

March 2d, 1853.

### Railroad Iron.

THE undersigned, Agent for the Manufacturers, is prepared to contract for T Rails, of the usual pattern and weights, to be delivered on board ship in Wales.

He will also receive and forward orders for the purchase of Railroad Iron and Metals generally, through the medium of his friends in London.

For terms, apply to

JOHN H. HICKS,  
90 Beaver St.

O. A. NORRIS,

American Railway Agency,

FOR THE PURCHASE, ON COMMISSION, OF

ALL ARTICLES REQUIRED BY

RAILROAD COMPANIES.

Office, 12 Farquhar Buildings,

**Philadelphia.**

### Notice to Contractors.

PROPOSALS will be received at the Office of the Fort Wayne and Chicago Railroad Company in FORT WAYNE, until noon on Friday, the 20th of May next, for the Bridging, Grading, and delivering of Cross-ties for said Road.

PLANS, PROFILES and SPECIFICATIONS will be exhibited at the Office three weeks prior to the day of letting.

This line, One Hundred and Fifty miles long, embraces much heavy work, is well suited for prosecution in winter, and is divided into sections of from one to six miles in length, and may be bid for singly, or for the entire work.

J. R. STRAUGHAN,  
Chief Engineer.

**B. GROVES & SONS,**  
**SHEFFIELD, ENGLAND,**  
**Manufacturers of**

WARRANTED Cast Steel of superior quality for Tools, Machinery and Engineering purposes. Single and Double Shear, Blister, German, Spring and Sheet Steel of every description; also, Cast Steel Files of high reputation, specially adapted for the use of Machinists, and Saws and Edge Tools of all kinds.

Corporate mark



CHAS. CONGREVE, Agent,  
58 Maiden-lane, New York.  
Stocks of the above goods constantly on hand.

January 12, 1853.

**To Railroad Co's, Locomotive Builders and Engineers.**

THE undersigned having taken the Agency of Ashcroft's Steam Gauge, would recommend their adoption by those interested. They have been extensively used on Railroads, Steamers and Stationary Boilers, where, from their accuracy, simplicity, and non-liability to derangement, they have given perfect satisfaction. In fact, for Locomotives, they are the only reliable Gauge yet introduced.

CHAS. W. COPELAND,  
Consulting Engineer, 64 Broadway.

### Hoole, Staniforth & Co., MINERVA WORKS,

SHEFFIELD,

Steel Converters and Refiners;  
Manufacturers of Improved Cast Steel Engineering and Machine Files;

Locomotive Engine, Railway Carriage and Wagon Springs.

Saws of every description, Engineers' Hammers, etc., etc., etc.

An assortment of Steel from the above Works constantly on hand by RICHARD MAKIN,  
Agent for the Manufacturers,

43

24 Broadway.

### Fulton Car Manufactory, CINCINNATI, OHIO.

GEORGE KECK would respectfully call the attention of Railroad Companies in the West and South to his establishment at Cincinnati. His facilities for manufacturing are extensive, and the means of transportation to different points speedy and economical. He is prepared to execute to order, on short notice, Eight-wheeled Passenger Cars of the most superior description. Open and Covered Freight Cars, Four or Eight-wheel Crank and Lever Hand Cars, Trucks, Wheels and Axles, and Railroad Work generally.

Cincinnati, Ohio, February 9, 1853.

### Etna Safety Fuse.

THIS superior article for igniting the charge in wet or dry blasting, made with DUPONT'S best powder, is kept for sale at the office and depot of

REYNOLDS & BROTHER,

Proprietary Manufacturers,

No. 85 Liberty St.

NEW YORK.

And in the principal cities and towns in the U. States.

The Premium of the AMERICAN INSTITUTE was awarded to the Etna Safety Fuse at the late Fair held in this city.

November 3, 1849.

### Gerard Ralston,

21 TOKEN HOUSE YARD, LONDON,  
OFFERS HIS SERVICES FOR THE

### PURCHASE AND SALE OF AMERICAN SECURITIES, COLLECTION OF DIVIDENDS,

DEBTS, LEGACIES, ETC.,

And for the Purchase and Inspection of  
Railroad Iron, Chairs, or  
any kind of Machinery.

### REFERENCES:

Messrs Palmer, McKillop, Dent & Co., London.

" George Peabody & Co, London.

" Curtis, Bouve & Co, Boston.

Richard Irvin, Esq., New York.

Robert Ralston, Esq., Philadelphia.

C. C. Jamieson, Esq., Baltimore.

38

### CAUTION.

### India-rubber Car Springs.

A N advertisement having lately appeared in the public papers, signed H. H. Day, claiming to have received from the American Institute, the premium for the best India-rubber Car Spring, the subscribers think it well for the satisfaction of their friends and those interested, as well as for the purpose of exposing false statements, to publish the following Diploma, lately awarded to F. M. RAY, the inventor of the Spring. The original of which can be seen at the office of the company, No. 104 Broadway, New York.

DIPLOMA—Awarded by the American Institute to F. M. RAY, for the best India-rubber Car Spring. A Gold Medal having been before awarded.

Signed,

JAMES TALLMADGE,

President.

N. MEES, Recording Sec'y.

ADONIRAM CHANDLER, Cor'g. Sec'y.

New York, Oct., 1861.

New England Car Spring Co., No. 104 Broadway

New York.

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**PATENT  
Locomotive Steam Cylinder  
BORING MACHINE**

AND FOR OTHER PURPOSES.

THIS Machine enables the Cylinders to be reboored without moving them from their places, thereby saving a great expense. We refer to Nashua & Lowell, Fall River, Vt. Valley, Vt. and Mass., Old Colony, New York and New Haven, Providence, Hartford and Fishkill, Western, Mass., New York and Erie, Boston and Worcester, Connecticut River, Worcester and Providence, Champlain and St. Lawrence, Boston and Maine and Hudson River Railroads, who have the Machines in use.

For sale by  
**BRIDGES & BROTHER, Agts.,  
64 Courtland St. New York.**

January 20, 1853.

**Notice to Contractors.**

**SEALED PROPOSALS** will be received at the office of the Clinton line railroad company, in Hudson, Ohio, until the 20th day of May next, for the grading, masonry, bridging and superstructure of their entire road, from Hudson to the Pennsylvania state line.

Plans, profiles, and specifications will be exhibited, and all requisite information given, at the office of the company, in Hudson, on and after the 10th day of May next.

By order of the board of directors.

H. N. DAY, president.

W. B. BRINSMANDE, engineer.

Hudson, March 29, 1853.

**Toledo, Norwalk and Cleveland Railroad.**

OPEN through, completing the last link in the chain of Railroads between New York, Boston, Philadelphia, Baltimore and Washington City and Chicago.

The only route by which the dangers of Lake Navigation are entirely avoided.

The quickest and best route between New York, Boston and Philadelphia and St. Louis.

On and after Monday, April 11, 1853, Passenger Trains will run daily (Sundays excepted) as follows:

THROUGH TRAINS,  
Leave Toledo at 8.00 A. M. and 10.00 P. M.  
Leave Cleveland, 9.20 A. M. and 8.30 P. M.

BELLEVUE TRAINS,  
Leave Norwalk for Bellevue at 8 A. M.  
Leave Bellevue for Cleveland at 2 P. M.

Night Train will not stop at Townsend, Camden or Clyde, except to leave Passengers.

**CONNECTING DIRECTLY**

AT TOLEDO—With Trains of Michigan Southern Railroad for Chicago and the West, and forming a line in connection with the Chicago and Rock Island Railroad and Steamers on Illinois River, to St. Louis.

AT BELLEVUE—With Trains of Mad River and Lake Erie Road for Sandusky City, Dayton, Cincinnati, etc.

AT MONROEVILLE—With Sandusky, Mansfield and Newark Railroad, for Sandusky City, Shelby Junction, Columbus Newark and Zanesville.

AT GRAFTON—With Cleveland, Columbus and Cincinnati road, for Cleveland, Shelby Junction, Columbus and Cincinnati.

AT CLEVELAND—With Lake Shore Road, for Pittsburgh, Wheeling, Philadelphia, Baltimore and Washington City.

Freight forwarded promptly at fair rates.

E. B. PHILLIPS, Sup't.  
Superintendent's Office, T. N. & C. R.R.,  
Norwalk, O., April 8, 1853.

**Railroad Iron.**

THE undersigned, from their late long engagements with one of the most eminent Houses in the Iron Trade of Great Britain, considering themselves well qualified to assist Railway Companies and others in making purchases in the English market, tender their services free of any charge to such as will favor them with communications, either personal or by letter.

Address JOHN H. AUSTIN & CO.,  
2 Ingram Court,  
Fenchurch street,  
London.

May 2, 1853.

**Railroad Iron.**

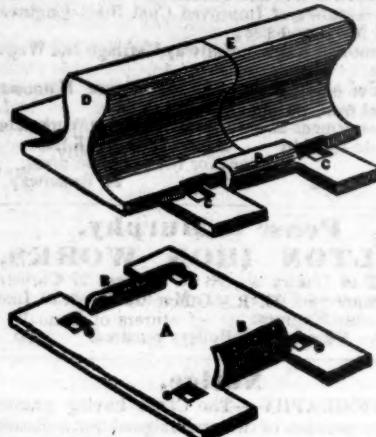
THE "Montour Iron Company" is prepared to execute orders for Rails of the usual patterns and weights, and of any required length not exceeding 30 feet per rail. Apply to

THOS. CHAMBERS, President,  
68 Beaver st., N. Y.

Or to the Agents,  
CHOUTEAU, MERLE & SANFORD,  
No. 51 New st., New York.

September, 1853.

**The American Railroad Chair Manufacturing Co.  
IN POUGHKEEPSIE, N. Y.,**



ARE prepared to make WROUGHT IRON RAIL ROAD CHAIRS, of various sizes, at short notice.

By use of the WROUGHT IRON CHAIR, the necessity of the wedge is entirely done away—the lips of the chair being set, by means of a sledge or hammer, close and firmly to the flange of the rail.

The less thickness of metal necessary in the Wrought Iron Chair gives much greater power and force to the spikes when driven—and consequently a much less liability to the spreading of the rails by reason of the spikes drawing or becoming bent.

The less weight necessary in the Wrought Iron Chair, will enable us to furnish them at a cost much below that of CAST IRON CHAIRS.

Our Chairs are made from Ulster Iron, the quality of which is well known. Our Chairs are made by machinery, and formed over a die, consequently all are uniform and alike.

Our Chairs are in use on the following Roads, viz:

Syracuse and Utica,	Chester Valley, Penn.,
Buffalo and Rochester,	Tioga, "
Northern,	Norwich and Worcester,
Montreal and New York,	Kings Mountain, S. C.,
Kennebec and Portland,	Columbia and Granville,
Plattsburg and Montreal,	Buffalo, Bayou Brazos and
Chicago and Rock Island,	Colorado, Texas,
Milwaukee and Miss.,	Panama, and others.

For further information address,

N. C. TROWBRIDGE, Secretary,  
Poughkeepsie, N. Y.

January 1, 1853.

**BRIDGEWATER PAINT,  
FOR WOOD, BRICK AND IRON BUILDINGS,  
Steam and Canal Boats,  
RAILROAD CARS, &c.**

OR

For all kinds of Work above and under water.

PERFECTLY SPARK AND CINDER PROOF,  
On Roofs of Houses, and Decks of Steamers, Railroad and other Bridges.

For sale in Blks, 300 and 400 lbs., and Kegs, 25, 50 and 100 lbs.

R. BOGERT, General Agent,  
Depot: 125 Pearl and 78 Beaver st., New York.

**To Railroad Companies, Car Builders, Machinists, etc.**

SINGER, HARTMAN & CO.,  
SHEFFIELD IRON AND STEEL WORKS,  
PITTSBURG, PA.

Warehouse Nos. 109 Water, and 140 Front st.

HAVING completed their arrangements for manufacturing Car and Locomotive Axles, Piston Rods, Wrought Iron Shafting, etc., either hammered or rolled, are prepared to offer inducements as to quality and price. They also manufacture

Boiler Plate and Rivets,  
Railroad and Boat Spikes,

Car and Locomotive Springs,  
" Spring Steel,

Solid Box Vices, etc., etc.

1517\*

SIMEON DRAPER, No. 46 Pine-st., offers for sale, a variety of RAILROAD BONDS and STOCKS; also CITY, TOWN and COUNTY BONDS, among which are—

1st Mortgage Convertible Bonds:

	Payable in
7 per ct.—Buffalo, Corning and New York	New York, 1857
R. R. . . . .	R. R. . . . .
7 per ct.—Western Vermont R. R. . . . .	1861-71
7 per ct.—Columbus, Piqua and Indiana. . . . .	1862
7 per ct.—Catawissa, Williamsport and Erie. . . . .	1867
8 per ct.—Peoria and Oquawka. . . . .	1863
6 per ct.—Mayville and Lexington. . . . .	1870
6 per ct.—Dauphin and Susquehanna Coal Co. . . . .	1877

1st Mortgage Bonds:

7 per ct.—Cornell and Blossburg. . . . .	1873
7 per ct.—Buffalo and New York City. . . . .	1866
7 per ct.—Mansfield and Sandusky. . . . .	1860
7 per ct.—Toledo, Norwalk and Cleveland. . . . .	1861
7 per ct.—Vermont Valley. . . . .	1861
7 per ct.—New Jersey Central. . . . .	1860-70
7 per ct.—Brunswick Canal Co. . . . .	1867
7 per ct.—Troy and Bennington. . . . .	Troy, N. Y., 1862

Also, second Mortgage bonds of many of the above companies, and—

7 per ct.—Saratoga and Washington R. R. New York, 1862	New York, 1862
7 per ct.—Troy and Boston. . . . .	1864
7 per ct.—Muscogee Railroad. . . . .	Savannah, 1862
7 per ct.—Huron and Oxford. . . . .	New York, 1862
10 per ct.—Mansfield and Sandusky R. R. Co. . . . .	1855-57
10 per ct.—Township of Portland, Ohio. . . . .	1862

7 per ct.—City of Dayton, Ohio, guaranteed by

Mad River R. R. . . . .

10 per ct.—City of Keokuk, Iowa. . . . .

Keokuk, 1863

7 per ct.—Town of Huron, Erie county, Ohio. . . . .

Huron, 1861

7 per ct.—Town of Newark, O. . . . .

Newark, 1860

7 per ct.—City of Sandusky, convertible into

Junction R. R. Stock. . . . .

" 1860

7 per ct.—State of California. . . . .

" 1862-72

7 per ct.—Mortgage bonds of the Atlantic

Steamship Co. . . . .

" 1855

12 per ct.—Improvement Scrip of the State of

Wisconsin for improvement of

Fox River. . . . .

" 1862

Rutland and Whitehall Stock, with guarantee of 7 per cent.

dividend by Saratoga and Washington Railroad.

Stock in the Western Vermont R. R. Co.

Stock in the Mad River R. R. Co.

Stock in the Buffalo, Corning and New York R. R. Co.

Stock in the Mansfield and Sandusky R. R. Co.

Stock in the New York and Virginia Mail Steamship

Company, paying 20 per cent. dividends.

**The Cold Spring Iron Works  
INCORPORATED IN 1848.**

In the Town of Otis, County Berkshire, Massachusetts, manufactures CAR AXLES, and all kinds of WROUGHT IRON used in the manufacture of LOCOMOTIVES and CARS; also, BAR IRON of all descriptions. Particular attention is paid to the manufacture of CAR AXLES, and the Works being situated in a region of WOOD and CHARCOAL, with which their Axles are exclusively made, the Company feel confident they can furnish an article equal, if not superior, in quality and finish to any in the market. They solicit the orders of RAILROAD CORPORATIONS and CAR BUILDERS, and promise they shall be promptly attended to: and executed on terms as advantageous as can be had elsewhere. They refer to—

John Kinsman, Esq., Superintendent Eastern Railroad, Salem, Mass.

A. T. Peirce, Esq., Car Builder, Norwich, Conn.

E. T. Osborn, Esq., Superintendent of the Mad River and Lake Erie Railroad, Sandusky City, Ohio.

W. W. Wetherell, Car Builder, " "

Address HENRY MELLUS, Agent,

Boston, Mass.

or, GEO. W. PRESCOTT, Sup't,

Otis, Mass.

November 12, 1852.

**Anthracite and Charcoal Pig Iron.**

800 Tons No. 1 Glenden Anthracite Pig Iron.

1000 " No. 2 " " "

1000 " Forge " " "

200 " No. 1 Stockbridge Charcoal " "

100 " No. 2 " " "

500 " Forge Katahdin " " "

For sale by

GEORGE W. A. WILLIAMS,

5 Liberty Square, Boston.

3m

**FOR SALE.**

TWO Sixty Horse Power Beam Engines, with eight boilers, suitable for Blast Furnace, Pumping, or Mining; formerly used by the State of Pennsylvania on the Schuylkill Inclined Plane, near Philadelphia, (where they may now be seen.)

Apply to A. & P. ROBERTS,

No. 80½ Walnut Street, Philadelphia.

**Notice to Contractors.**

**M**ississippi and Atlantic Railroad, from Terre Haute to St. Louis Letting.—Sealed proposals, will be received at the office of the Company, either at Terre Haute, Indiana, or Marshall, Illinois, until and on the 15th day of May, 1853, at sundown, for the grading and masonry from Terre Haute, Indiana, to Pocahontas, Illinois, (124 miles) and for the bridge across the Wabash River.

Propositions will also be received until and on the 15th day of June, 1853, at sundown, at either of the above named offices, for the grading and masonry from Pocahontas to Caseyville, (30 miles.)

Proposals will be preferred for sections not less than one nor more than three miles, but will be received and considered for sections of ten, fifteen and twenty miles.

The Company reserves the right to accept of such proposals as in their judgment will best secure the prompt construction of the road, and to reject any and all propositions as they may think proper.

Profiles and specifications can be seen at the office in Terre Haute for two weeks previous to the letting.

JOHN BROUH, President.

S. DWIGHT EATON, Engineer.

Terre Haute, Ind., March 1, 1853.

**Engineering.**

**T**HE Undersigned is prepared to furnish Specifications, Estimates and Plans, in general or detail, of Steamships, Steam-boats, Propellers, High and Low Pressure Engines, Boilers, Mill Work, etc., etc. Particular attention given to the procuring and superintending of Locomotives, Tenders, Cars, and Railway Machinery of every description.

General Agent Ascroft's Steam Gauge, Allen & Noyes' Metallic Self-adjusting Conical Packing, Duggeon's Hydraulic Jack, Sewall's Salinometers, etc., etc., etc.

Acts as Agent for the purchase or sale of, and has always on hand, Steamers, Locomotives, Engines, Boilers, Machinery, etc.

CHAS. W. COPELAND,  
Consulting Engineer,  
64 Broadway, N. Y.

**Krupp's  
BEST CAST STEEL.**

Which obtained the Council Medal at the London Exhibition in 1851.

Warranted unapproachable as to Quality and Size.

**P**LATTERS and other Cast-Steel Rollers, of any dimensions, not exceeding six feet long by eighteen inches diameter. Piston Rods and Shafts for Steam Engines. Railway and other Axles, Cranks, Springs and Tyres. Cannon, Rifle and Gun Barrels. Mint and other Rolling Mills.

—Particularly applicable for—

Engravers' Transfer Rollers and Plates; Die-sinkers', Tool-makers, Reed and Lace Makers' use; Dredging Chains, etc., etc. Manufactured at Essen, in Rhenish Prussia, by FRIED. KRUPP.

Agents, THOMAS PROSSER & SON,  
28 Platt street, New York

**RAILROAD IRON.**

**T**HE Cambria Iron Company are now prepared to contract for Rails for future delivery, at their Works, Johnstown, Penn, or upon the Allegheny River at Pittsburg or Freeport. Office, Johnstown, Penn, and 46 Pine st., New York. May 2, 1853.

**Railroad Iron.**

3000 TONS superior quality, delivery from April forward, with 5 to 600 tons per month, for sale by NAYLOR & CO., 99 & 101 John street.

**Wm. Swinburne,**

**L**OCOMOTIVE ENGINE BUILDER, Paterson, N. J., is prepared to execute orders for Freight and Passenger Engines; also, Tenders, Wheels, Axles, Boilers and Railway Machinery in general, with all the modern improvements, etc.

**LITHOGRAPHY.**

**P**UBLISHERS, Civil Engineers, Machinists, and others requiring Lithographs, plain or in colors, can depend on the high finish of their designs, along with promptness and dispatch.

DAVID CHILLAS,  
50 South 3rd Street.  
Philadelphia.

May 1st, 1853.

**Dudley B. Fuller & Co.,  
IRON COMMISSION MERCHANTS,  
No. 139 GREENWICH STREET,  
NEW YORK.**

**Blake & Parkin,  
MEADOW STEEL WORKS,  
SHEFFIELD,**

INVENTORS OF

**CORE-ANNEALED CAST STEEL,**

A most Important Improvement in CAST STEEL, originating with B. & P., for SCREW TAPS, PISTON RODS, ENGRAVERS to CALICO PRINTERS, SILVER and GOLD ROLLERS, etc., etc., warranted to harden by ordinary process without breaking, being soft in the centre to any required diameter, and hard to any specified depth from the outside.

**HARD CENTRE CAST STEEL,**

For DIES, LATHE CENTRES, MINT PURPOSES, etc., etc., warranted to harden the Inside without breaking, (the outside remaining soft.)

**HARD AND SOFT SURFACE CAST STEEL,**

In Bars and Sheets, hard on one or both sides, and soft in the centre; or soft on one or both sides, and hard in the centre, and adapted for a variety of purposes, as MACHINE KNIVES, SLIDE BARS, PLOW KNIVES, PLANING KNIVES, ROLLER BARS for Beating Engines for Paper Makers, etc.

If This peculiar Steel is quite SOLID, and it is quite malleable, and draws down under the Hammer, still retaining the difference of hardness. When hardened, the hard part is left very hard, while the soft is left just harder than common iron.

**THE REPORT OF THE JURY OF THE  
EXHIBITION OF ALL NATIONS.**

Class 21, Page 486:

The attention of the Jury was particularly called to one novelty exhibited by Messrs. BLAKE & PARKIN, of SHEFFIELD, consisting of the union of Two qualities of Cast Steel, hard and soft, in the same article; manufactured with much skill, they have no reason to doubt that the process is peculiar to the Exhibitors."

**A PRIZE MEDAL WAS**

AWARDED TO

MESSRS. BLAKE & PARKIN.

N. B.—The Inventors mark all their Goods with their CORPORATE MARK—X. L. ENT.

Also, Cast Steel, German and Spring Steel, warranted Cast Steel Files, Saws, etc.

GEO. SANDERSON,  
248 Peal st., N. Y.

February 9, 1853.

**New Works on Civil Engineering.**

THE Field Practice of laying out Circular Curves for Railroads.—By JOHN C. TRAUTWINE, Civil Engineer—2nd edition in pocket-book form.

A new and rapid method of Calculating the Cubic Contents of Excavations and Embankments, by the aid of Diagrams.—By JOHN C. TRAUTWINE, Civil Engineer—with 10 Copper Plates.

Price One Dollar each—postage on the Curves Three Cents—and on the Excavations and Embankments, Six Cents.

For sale by WILLIAM HAMILTON,  
Hall of the Franklin Institute,  
Philadelphia.

May 4, 1853.

**Railroad Iron.**

5000 TONS Best Staffordshire Rails for sale on early delivery in Liverpool by NAYLOR & CO., 12ft 99 John street.

**To Surveyors and Engineers.**

A MAN of science, and thoroughly acquainted with surveying and civil engineering, wishes a situation with some good practical engineer.

Address "H. W." this office.

3\*12

**Iron for Machinists.**

THE SUBSCRIBERS,  
IMPORTERS AND DEALERS IN  
IRON AND STEEL,

HAVE constantly on hand a good assortment of Iron and Steel, expressly adapted to the use of LOCOMOTIVE AND CAR BUILDERS, AND MACHINISTS GENERALLY.

ELLIOTT & HOLDEN,  
Feb. 16, 1853. 90 Beekman st., N. Y.

**Fire Bricks.**

SCOTCH Patent—for sale in lots to suit purchasers, by G. O. ROBERTSON,  
135 Water street, corner of Pine,  
November 19, 1852. New York.

\$300,000 PERU and INDIANAPOLIS RAILROAD FIRST MORTGAGE CONVERTIBLE SEVEN PER CENT BONDS.

We offer for sale, at reasonable rates, \$300,000 of the 7 per cent 1st Mortgage Convertible Bonds of the Peru and Indianapolis Railroad Company.

Forty miles of this road, lying between Indianapolis and Tipton, is now completed and in operation. The Madison Road operates the same. The residue of the line to Peru, 32 miles, will be completed and in operation by the 1st of November next.

The entire Road will cost, when completed and equipped, about \$1,200,000.

The available stock subscription is \$29,000. The mortgage debt is but \$600,000 in all, the above being a part thereof. The Road owes no other debt.

This Road is advantageously located, connecting at Indianapolis with the Madison road (of which it is a direct extension northwardly) and the other roads there centering.

At Peru it connects or intersects with the Wabash and Erie Canal, and it will shortly be extended to the Fort Wayne and Chicago Road at Warsaw.

It traverses a region of great fertility and productiveness, having no other outlet to a market. Its local business alone, will, it is thought, yield a handsome support.

Pamphlet exhibits, with maps of the work, and any other more detailed information desired, will be furnished on application to the subscribers.—New York, April 7, 1853.

WINSLOW, LANIER & CO., No. 52 Wall-st.

**To Contractors.**

**P**ROPOSALS will be received at the Engineers' Office of the Cleveland and Mahoning Railroad Company, in Warren, Trumbull County, Ohio, until Tuesday, May 17th, 1853, for the Grading and Masonry of about Fifteen Miles of said Road, from Warren to Youngstown. The line runs along side or within sight of the State road, and the Pennsylvania and Ohio Canal, the whole distance.

Plans and Specifications are now ready for inspection at the office in Warren.

Estimates will be made monthly, and payments in cash.

By order of the Board of Directors.

EDWARD WARNER, Chief Engineer.

**New York and Erie R. R.**

PASSENGER TRAINS leave Pier foot of Duane street, as follows, viz.:—

BUFFALO EXPRESS, at 6 a. m. for Buffalo direct, over the N. Y. & E. R. R., and the Buffalo and N. Y. City R. R., without change of baggage or cars.

CHICAGO EXPRESS, at 6 a. m. for Dunkirk.

DAY EXPRESS, at 7 a. m., for Dunkirk.

MAIL, at 9 a. m. for Dunkirk, and all intermediate stations.

NIGHT EXPRESS, at 3:30 p. m. for Delaware and all intermediate stations.

EMIGRANT, at 7:45 p. m. for Dunkirk and all intermediate stations.

The Express Trains connect at Dunkirk with the Lake Shore Railroad for Cleveland, and thence direct to Cincinnati; also, Sandusky, Toledo, Monroe, Chicago and St. Louis; also, with first class splendid steamers for Cleveland, Toledo and Detroit.

CHAS. MINOT, Sup't.

**Superior Cast Iron Gas and Water Pipes.**

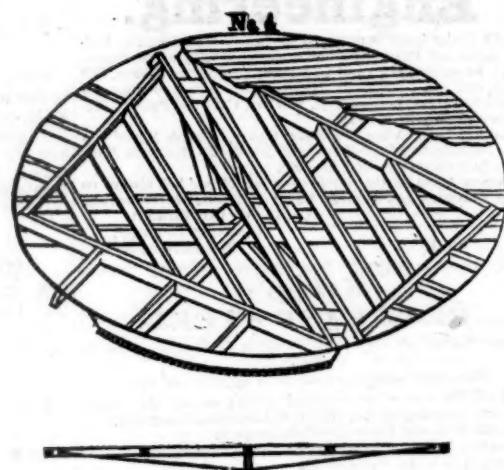
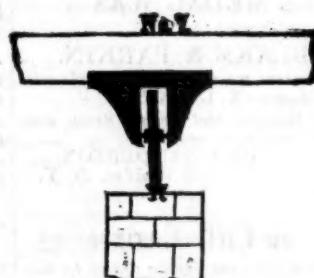
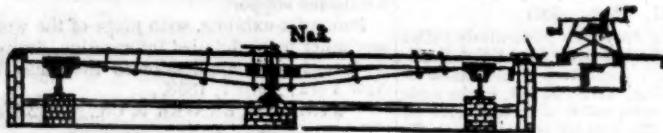
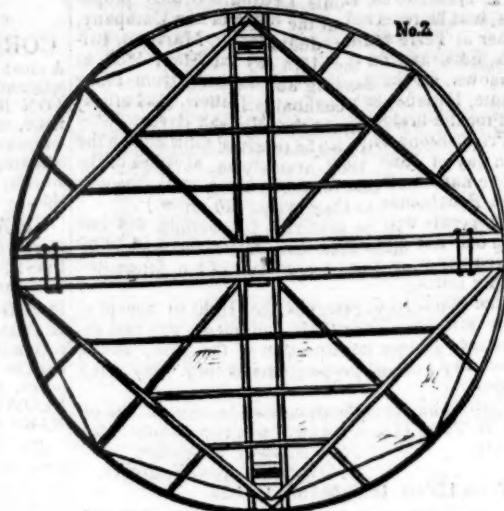
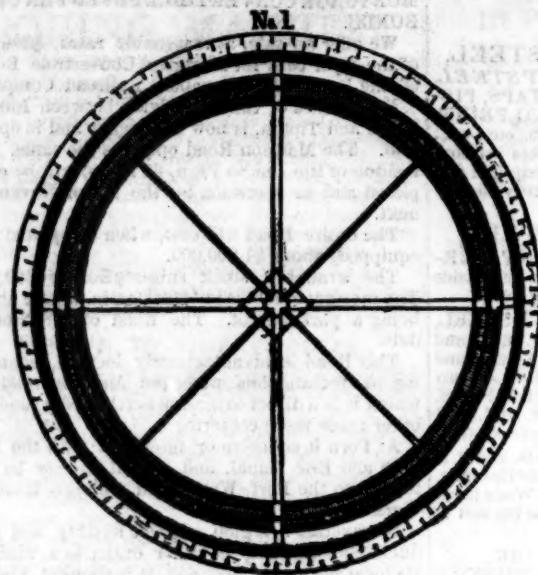
THE Subscriber is prepared to contract for the supply of CAST IRON PIPES required by Gas or Water Companies, Corporations, etc., delivered in any Seaport in the Union, on reasonable terms. These Pipes are cast on the most approved principle by the best Founders in Scotland, from a superior quality of Pig Iron remelted, are guaranteed to resist a pressure of 300 lbs. to the square inch, or greater if necessary, and to be soft enough to drill easily and freely. Full information regarding price, and references to parties in the United States now using the Pipes, can be obtained on application to the Agent in New York.

WILLIAM ROY, Junr.,  
21 Renfield st., Glasgow,  
Scotland.

J. M. EADIE, Agent,  
26 Front st., New York.

ly50

## CARHART'S IMPROVED TURNTABLE.



THIS TURNTABLE, together with an Engine and Tender of 30 tons weight, is capable of being turned by ONE MAN in 25 SECONDS.

The Patentee of this Improved Table would solicit an examination by those Railroad Companies which have not tried its merits. It is guaranteed to be the cheapest and most durable one now in use; its simplicity rendering it impossible to get out of repair, unless it is placed upon treacherous foundations. The whole cost, ready for use, was formerly \$1,300 apiece; this included all the workmanship and materials, which were the best that could be furnished, with the exception of excavating the pit and furnishing the rail for the tracks. At the present time, owing to the rise in Iron, and the scarcity of stone at some points, the subscriber is compelled to ask a small advance on the above mentioned price. Should it suit the pleasure of any to confer with the subscriber for further particulars,

or inquire into the practical utility of the Table as and smooth. The centre pier is of stone, with a step for the screw and pivot bolted to the same. Fig. 1, of the above cut, represents the Foundations, consisting of the Bank and Track Walls, the latter made of cut, and the former of hammer-dressed stone, with a cut coping. The Track is spiked and leaded to the stone wall, and cut perfectly level

Hudson River R. R. Co.,

S. W. Roberts, Esq., Chief Engineer of the Ohio and Penn. R. R., at Pittsburgh, Pa.

O. Barnes, Esq., Resident Engineer of the Central Pennsylvania R. R., Pittsburgh, Pa.

J. Durand, Esq., Sup't of Cleveland and Pittsburgh R. R.

Wm. E. Furguson, Esq., Chief Engineer of Toledo, Norwalk and Cleveland R. R., Cleveland, O.

A. J. Conover, Esq., Chief Engineer of Columbus, Piqua and Indiana R. R., at Piqua, O.

Fig. 1, of the above cut, represents the Foundations, consisting of the Bank and Track Walls, the latter made of cut, and the former of hammer-dressed stone, with a cut coping. The Track is spiked and leaded to the stone wall, and cut perfectly level

for the screw and pivot bolted to the same.

Fig. 2, shows the Carcass Framing.

Fig. 3, is a side view of one Main Truss, with the mode of gearing, including the mitre-wheels, and iron crank frame, rack and pinion.

Fig. 4, gives a perspective view of the rim, segments, decking, etc.

Fig. 5, is an end view of the main trucks, with pedestals and wheels.

Fig. 6, is the screw for the pivot, 6 inches in diameter, working in a steel step through a nut for adjustment.

Fig. 7, shows a cross section of the track wall, well and pedestal.

For further particulars, please address

D. M. CARHART,  
Cleveland, Ohio.

February 14, 1853.

### LOW MOOR AXLES,

A SUPERIOR Article for Railroad Cars, supplied by the Manufacturers' Agent - W.M. BAILEY LANG, 9 Liberty Square, Boston, and 24 Broadway, New York.

#### CAUTION.

RAILROAD Companies, and the public generally are hereby cautioned against purchasing Richardson's Patent Oil Cups, or the right to use the same, except of the undersigned, Proprietor of the Patent, or of some one acting under his authority. Communications addressed to him at Westminster, Vt., will be promptly attended to.

E. DeWOLF, Jr.

Oct. 2, 1852. ly\*

### To Engineers, Architects and Draughtsmen.

THE undersigned begs respectfully to inform Gentlemen in the above professions, that he has constantly on hand a great variety of Instruments for Field and Office use.

JAS. PRENTICE,  
Feb 9 1853. 315 Broadway, N. Y.

### Oxford Furnace, N. J.

ESTABLISHED A. D. 1743.

THE Subscriber manufactures and keeps constant on hand for sale, every variety and size of Railroad Wheels made from the celebrated Oxford Iron. All orders addressed to CHAS. SCRANTON, Oxford Furnace P. O., will be attended to promptly.

Sept. 11, 1852. ly\*

### IRON.

#### Pierson & Co.,

24 BROADWAY, NEW YORK,

KEEP on hand a large and general assortment of K. ENGLISH and AMERICAN, Refined, BAR, BOLT, SHEET and SHAFTING IRON, especially manufactured for LOCOMOTIVE and CAR BUILDERS, and RAILROAD MACHINE SHOPS; also, Boiler Plates and Rivets, Sheet, Cast and Spring Steel.

Locomotive Cranks, Axles, Tires and Tire Bars, of the B. O. LOWMOOR, and other approved makes, imported to order on the most favorable terms.

February 14, 1853.